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JANUARY, 1999

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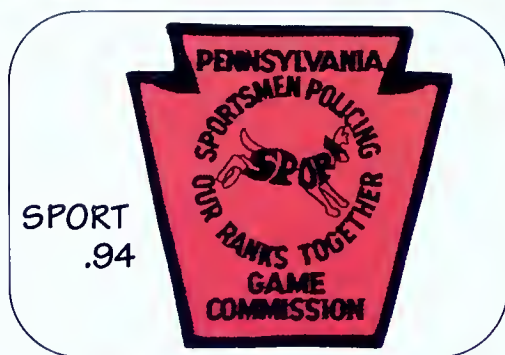
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**Annual
Report
1997-98**

Pennsylvania Game Commission Annual Report Fiscal Year 1997-98

EXECUTIVE OFFICE

"PENNSYLVANIANS throughout history have cherished and benefited from the abundance and diversity of wildlife found throughout the Keystone State. From the days of plenty witnessed by William Penn, through the era of exploitation experienced in the late 1800s, Pennsylvanians have loved and learned from their wild resources.

Never in this century have black bears and wild turkeys been more abundant. The past decade has seen remarkable increase in numbers of nesting bald eagles, peregrine falcons and ospreys; while elk and river otters are making comebacks of like proportions. Beaver, bobcat, muskrat, fox, raccoon and other furbearing animals still abound, offering proof that species trapped by the earliest settlers can still co-exist in our fast-paced world of technology.

Key to Pennsylvania's wildlife heritage has always been the white-tailed deer. The lure of bagging a whitetail has drawn untold millions of families and friends to Pennsylvania's forests. Deer hunting, more than any other outdoor activity, truly does provide "Memories that Last a Lifetime!"

These words in part provide the preface to the Game Commission's Strategic Plan for Managing Pennsylvania's Wildlife Resources through the year 2003.

Adopted in January 1998, this 20-page document identifies 11 specific programs within the agency; they being Wildlife Management, Wildlife Habitat Management, Wildlife Habitat Protection, Land Access, Communications and Education, Law Enforcement, Human Resources, Administrative Services, Licensing, Information Technology and Facilities Management.

Not only does the plan provide a historical perspective of the agency's history and mission, but also it defines key management principles, program goals and specific objectives that the agency hopes to achieve by the year 2003. If you'd like a copy of the plan, please contact us in Harrisburg and request a copy.

It should come as no surprise to Pennsylvania's hunter-conservationists that our wildlife heritage is worth protecting and promoting into and throughout the 21st century.

Recent independent surveys conducted by the U.S. Fish and Wildlife Service and Pennsylvania State University for the Center for Rural Pennsylvania indicate the degree to which wildlife activities are important to the commonwealth's economy.

The 1996 National Survey of Fishing, Hunting and Wildlife-Associated Recreation identified a total of 879,000 resident hunters 16

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2003.*

years old or older. Of this group, total in-state hunting related expenditures amounted to \$692 million. Hunting is undoubtedly important to Pennsylvania's economy, most specifically in rural areas that serve as destinations to hunters traveling away from their place of residence.

The same survey identified 3.4 million residents 16 years old or older who took advantage of wildlife-watching (Watchable Wildlife) activities such as observing, feeding or photographing. It may surprise you to know that Watchable Wildlife activities generated \$858 million dollars in economic activity; more than the total generated by sportsmen in their hunting related activities.

All totaled, consumptive and non-consumptive wildlife related activities generate approximately \$1.5 billion annually in direct sales. These include retail sales for equipment, food, lodging and travel related expenditures. Pennsylvania annually collects more than \$38 million in state sales tax from hunters on hunting related purchases, and another \$50 million from residents on Watchable Wildlife activities. Of the millions of dollars collected annually from 6 percent sales tax on wildlife-related products, none of it is re-appropriated back to the Game or Fish & Boat Commission for support of the very resources from which it was generated. This, in the future, must change.

Just as the Pittman-Robertson and Wallop-Breaux programs generate federal funding in support of game species and sport fisheries, so too would the Conservation and Reinvestment Act of 1998 generate federal funding for nongame fish and wildlife conservation and education programs. Original estimates, if passed in the current draft form, call for Pennsylvania to be eligible for nearly \$30 million annually. As is the case with many federally funded programs, Pennsylvania would need to spend a given amount of state funds to become eligible for the federal. This is why it is so important to recognize the considerable contribution currently being made by wildlife enthusiasts to Pennsylvania's general fund. The dollars needed for Pennsylvania's state match are already there. Citizens interested in Watchable Wildlife activities have been investing for years without the focus of their investment receiving any direct financial return. That must change. The time to openly debate the merit of general fund appropriations to the Game and Fish & Boat Commissions is now. A small percentage of the sales tax revenues generated each year should and would go far in providing a secure future for nongame fish and wildlife.

Just as a two-legged stool provides an unstable seat upon which to sit, so too does a funding plan that provides funding for only two of three important wildlife initiatives. Hunters, shooters and fishermen should be proud of the funding they've provided to ensure secure status for game species as well as sportfish. The time is now, however, for everyone to step to the plate and provide secure funding for nongame conservation and education programs.

Your Game Commission remains committed to its mission, that being to:

- Protect, conserve and manage the diversity of wildlife and their habitats,



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Of the millions of dollars collected annually from 6% sales tax on wildlife-related products, none is re-appropriated back to the resource.



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- Provide wildlife related education, services and recreational opportunities for both consumptive and non-consumptive uses of wildlife, and
- Maintain and promote Pennsylvania's hunting and trapping heritage.

Pennsylvanians have every reason to be optimistic about the future of our wildlife, but key to that future is our willingness to provide secure funding to those things less obvious and glamorous than the species we've traditionally pursued. Your support of this important initiative is very important and you should make your support known to your local congressman as well as U.S. Senator.

We hope you take time to review the entire annual report which follows, and wish you a prosperous new year filled with wonderful hunting memories and other wildlife related experiences.

Training Division

On June 7, 1998, the 24th Class of Wildlife Conservation Officers, comprised of 17 trainees, enrolled in our Ross Leffler School of Conservation. This intensive training program will take 38 weeks to complete. Upon graduation in March 1999 the new officers will be assigned to vacant districts across the commonwealth. Due to our large number of current and anticipated vacancies, plans are currently underway to enroll the 25th Class in June 1999.

Training newly promoted Land Management Group Supervisors is another high priority program. Six new supervisors participated in the Land Manager Development Program last year. This highly structured program consists of on-the-job training and courses in habitat management techniques, equipment usage and safety, supervisory skills and computer training.

In our continuing effort to enhance communication skills, 87 managers and supervisors attended a 3½-day course titled Systematic Development of Informed Consent (SDIC). Basically, the course teaches new and effective techniques for gaining public support for agency programs using citizen participation in the decision making process.

This division is responsible for managing or facilitating training for all classes of employees. During the past year, programs were presented on first aid and CPR, law enforcement, management, communications, computer skills and basic training for deputies.

ADMINISTRATIVE SERVICES

Thomas C. Wylie, Director

Hunting License Division

In 1997, for the first time, bear licenses were available through our

Plans are currently underway to enroll the 25th Class of Wildlife Conservation Officers in June 1999.

network of over 1,000 issuing agents. The license was redesigned, reduced in size and bound in books for easier handling. Bear licenses no longer need to be displayed, just carried on the person while hunting. Expanding distribution statewide greatly improved customer service and led to a marked increase in bear license sales. Sales jumped 25 percent in 1997 compared to 1996. The new design and distribution method netted the Commission more than \$172,000 in bear license revenues compared to 1996.

A new lifetime license category (general hunting or furtaker) was created in 1997 for resident disabled veterans with a permanent, 100 percent disability rating from the Veterans Administration. The new license is issued by county treasurers only and is free to qualified applicants who present the appropriate documentation.

Office Services Division

This division's responsibilities include the ordering, stocking and distribution of all office supplies for the agency along with the warehousing and distribution of uniforms and equipment for field personnel, Hunter-Trapper Education materials, various Information and Education pamphlets, plus supplies and licenses for issuing agents. This division also distributes all incoming mail and processes mail destined for regional offices' field personnel, news media, license issuing agents, sportsmen's clubs and the general public.

As a result of participating with the commonwealth's Mail Presort Program, the Game Commission realized a postage savings of \$9,596 this fiscal year.

Automotive and Procurement Division

Cash Management Program – In January 1998 a system was implemented to maximize interest earnings for all revenue collected throughout the agency. The system is controlled through the Game Commission's Central Office via a commercial banking institute and an automated clearinghouse (ACH) program. This system facilitates the use of an electronic sweep of agency regional depository accounts into the main account without the usual time delays of mail routing and administrative processing. Since its inception, more than four million dollars has been processed through the automated clearinghouse and several thousand dollars in interest has been earned. The interest earned is a vast improvement over our previous system, which operated at a net loss for the previous fiscal year. We are pleased with these



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Licenses sales through 6/30/98

Adult Resident	811,322
Junior Resident	98,523
Senior Resident	48,614
Landowner Resident	1,633
Nonresident Adult	63,582
Nonresident Junior	2,229
Nonresident 7-Day	4,432
Archery	321,556
Muzzleloader	83,208
Mig. Game Bird License	127,112
Antlerless Deer	677,565
Adult Resident Furtaker	22,515
Junior Resident Furtaker	3,046
Senior Resident Furtaker	1,450
Nonresident Adult Furtaker	248
Nonresident Junior Furtaker	8
Resident Bear	114,280
Nonresident Bear	2,666
Sr. Lifetime Hunting	4,905
Sr. Lifetime Renewal Hunting	29,759
Sr. Lifetime Furtaker	146
Total Licenses Sold:	2,418,799
Total Revenue:	\$23,243,400



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Check out the
PGC's expanded
web site at:
pgc.state.pa.us

results and are anticipating more efficiency and effectiveness in the program as it matures.

Credit/Debit Card Program – The pilot program for the acceptance of credit/debit cards for payment of publications, *Game News*, hunting licenses, game law fines, etc., was implemented in September 1997, in the Harrisburg Central Office of the Information and Education Bureau. The program has been a success and has been expanded to our six regional offices and the License Division in Harrisburg.

Visa Purchasing Card Program – Our agency is currently participating in the Commonwealth (Visa) Purchasing Card Program. The program was implemented to replace agency advancement accounts and changes the method of payment for purchases \$1,500 or less. The program has been successful. The Advancement Account, however, is still being used for payment of invoices for vendors not willing to accept Visa card payments, and until such time as a rapid system can be implemented by our Comptroller's Office for payment of these invoices.

Procurement Code – Act 57 – The change in the Procurement Code will modernize and streamline the commonwealth's purchasing practices and have a significant impact not only on commonwealth agencies but also for those who do business with the commonwealth. The Procurement Code will centralize both procurement and services within the Department of General Services (DGS) and went into effect November 11, 1998. The Procurement Code will allow DGS to give agencies more authority but at the same time demand greater accountability. We are currently in the process of assessing the needs of our agency and developing the infrastructure needed to accommodate these changes.

Automotive Activity – Approximately 99 percent of our vehicles ordered for the '97 fiscal year have been received. We are continuing to evaluate the Commission's use of assigned fleet vehicles to ensure minimum vehicle numbers while maintaining efficient operations.

AUTOMATED TECHNOLOGY SERVICES

Bob Strailey, Director

THIS HAS been a year of maintaining what we have. Budget restrictions are preventing us from upgrading many components of our information technology infrastructure. We trust that once the license increase issue is settled, we'll be better able to meet the information requirements of the agency.

At the same time, we hope that once we do bring our management information technology up to date, that we will also be able to recruit, train and retain the qualified professionals it takes to most efficiently run our operation.

Our ability to take advantage of new technologies, such as optical

storage, geographical information systems, modern data base packages, client server architecture, electronic commerce and more advanced networking techniques will help all of our employees provide a more efficient, effective and improved service to our constituents.

Despite our financial and manpower constraints, we were able to complete our mainframe program conversion for Year 2000 compliance. The most recent version of our mainframe operating system has been installed. The computer room has been upgraded with a new alarm system and additional water sensors. And the *Game News System* was modified to handle credit card sales.

The agency Internet home page has been expanded to include the Commissioner's page, news releases and Hunter-Trapper Education. The over-the-counter license sales system now accommodates credit cards. The Southcentral Region WCO pilot project for the use of personal computers was a success and has been expanded.

As you can see we have not sat idle. But with an increase in funds, we will be able to enhance our information technology infrastructure, keep our information technology professionals and more effectively manage and use our information resources.



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INFORMATION & EDUCATION

Lantz A. Hoffman, Director

DESPITE FINANCIAL constraints that impacted nearly every facet of the bureau's operations, significant strides were made in our continuing efforts to inform and educate the publics we serve. Bureau personnel were instrumental in arranging the Governor's Symposium on North America's Hunting Heritage held in Hershey last August. The agency's elk video, two years in the making, will soon be available. Featuring outstanding footage like the award winning bear and deer videos, this video will cover the elk and the management programs being conducted to benefit this magnificent animal.

During the year we worked with WPSX at University Park in producing WILD Pennsylvania, a 13-part television series featuring Pennsylvania wildlife. The series is being run by every public broadcasting station in the state, and is already receiving rave reviews.

Through our regional information and education assistants, wildlife education supervisors/specialists, WCOs and other employees, the Game Commission is reaching more school students and youth groups than ever before. The importance of exposing youngsters to wildlife and wildlife management cannot be over emphasized. And speaking of youngsters, plans are underway to update and expand our Hunter-Trapper Education program to reach more people interested in giving hunting and trapping a try. Our support for the many Youth Field Day events, and coordination of the Becoming an Outdoors-Woman Pro-

The importance of exposing youngsters to wildlife and wildlife management cannot be over emphasized.



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**HTE instructors
presented 883
courses, reach-
ing nearly
38,000 stu-
dents.**

gram, provide exciting opportunities for thousands of new outdoor enthusiasts.

These are but a few highlights. Following are more of the bureau's important accomplishments for the 1997-98 fiscal year.

Hunter-Trapper Education

Student enrollment in Hunter-Trapper Education courses showed a decline during the last annual reporting period, with 37,736 students being certified at one of the 883 courses conducted statewide. This number, the second lowest on record since 1969, marks a slow, but continued downward trend in student enrollments.

A corps of dedicated HTE instructors, currently numbering 2,935, continues to volunteer their time and talents by providing valuable instruction during the mandatory 10-hour basic course. There were 130 new HTE instructors trained and certified, and 65 in-service seminars were held to keep instructors abreast of new teaching methods and materials.

The division continued to conduct the Youth Hunter Education Challenge (YHEC) event at the Commission's Scotia Range facility near State College. Eighty-eight youngsters competed in sporting clays, small-bore rifle, muzzleloader, 3-D archery and hunter responsibility-wildlife identification events. The top 10 winners in both the junior and senior divisions went on to represent Pennsylvania at the International YHEC event at the National Rifle Association's Whittington Center in Raton, New Mexico. The Senior Gold Team (ages 15-19) emerged as senior team champions after four days of intense competition among 300 participants from 20 states.

Current division initiatives include establishing a computerized data-base of student graduate records, curriculum development for a remedial hunter education course now required by law for certain game law violators, exploring independent study options for basic hunter-trapper education, and a review of the new national course standards being developed for the program. Also planned is an enhanced youth essay contest to replace the current SPORT essay program.

Public Information Division

This division is now employing every possible means of communication to keep Pennsylvanians up to date on the mission of the Game Commission. The task involves much more than communicating with our more than one million licensed hunters and furtakers. Deer management draws interest not just in rural areas of the state, but in metropolitan areas such as Philadelphia and Pittsburgh as well.

News releases provided to more than 500 newspapers, columnists, and radio and television stations remain the backbone of a system dedicated to informing Pennsylvania's 12 million citizens about wildlife. However, methods of distributing those news releases are rapidly changing as technology advances become available.

Personal interaction with the news media continues to demand more and more time on the part of Harrisburg staff and I&E supervi-

sors in the six region offices. Logged media contacts to Harrisburg are fast approaching 1,500 per year. This attention is both welcomed and encouraged.

The division is actively involved in expanding information and photographs available on the agency's Internet web site. The news release section continues to be the most visited page. Since going on-line in 1997, usage of the PGC home page has increased dramatically.

The library at the Harrisburg headquarters underwent major remodeling revisions. The facility maintains more than 4,000 volumes and more than 100 periodicals, along with a growing video collection. While maintained primarily as a research facility for agency staff, other professionals in the field of wildlife management, many college and high school students also use this library.

Conservation Education Division

This fiscal year Commission personnel and volunteer facilitators conducted 82 basic Project WILD workshops, reaching more than 1,700 educators, a record in our state. A basic Project WILD workshop is a minimum of six hours in length.

The WILD Habitat and WILD ACTION Grants programs were successful; 22 grants were awarded to schools and youth groups for habitat improvement projects. Grants were funded by the Commission, the Pennsylvania Outdoor Writers Association, Conservation Officers of Pennsylvania, Project WILD, the Scott Eckert Conservation Scholarship Memorial Fund and the Wild Resource Conservation Fund. To help maintain these programs, 60 facilitators were trained to conduct habitat improvement workshops for teachers and youth leaders throughout the state.

The Commission's Project WILD urban initiatives continue to flourish. A Project WILD urban facilitator network was established to discuss strategies for reaching students in urban areas. These facilitators will also adapt Project WILD activities to better meet the needs of urban teachers and students. The Commission partnered with DCNR's Nolde Forest Environmental Education Center to pilot an urban initiative in Reading. Reading has a high Latino population. With this initiative, the Commission and Nolde personnel are focusing on neotropical migrant birds as a tool to encourage students' involvement in conservation education. Funding for this project was awarded to the Commission by the Project WILD National Office.

This year six elk teaching trunks were completed, each containing videos, elk and deer antlers, elk and deer skulls, and a variety of other materials to help students learn about elk in our state. The trunks are housed in the regional offices and are available for loan to teachers. For more information contact the regional offices.

The *Pennsylvania Songbird* curriculum guide is completed. This was a joint project of the Commission, Bureau of State Parks and the Pennsylvania Audubon Society. The 300-page guide contains natural history, background information and hands-on activities on a variety of topics relating to songbirds from what makes a bird a bird to actions



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The deer/elk deterrent fencing program continues to be available to landowners experiencing excessive crop damage.

people can take to conserve birds and their habitats. This guide is a culmination of almost three years of research and material and activity review and development. Guides will be available for purchase and through workshops. This project was funded by the Wild Resource Conservation Fund and the participating agencies and organizations.

Game News

Introducing youngsters to the exciting and wholesome values hunting, trapping and shooting offer continues to be a major goal of *Game News*, and we devoted the August '98 issue to this endeavor.

Beginning with the October '97 issue, the "Straight from the Bowstring" column was taken over by four experienced archers, bowhunters and writers who cover a wide range of subjects, each with his own unique viewpoint. Linda Steiner won an award from the Pennsylvania Outdoor Writers Association in the Deer Award category sponsored by the Pennsylvania Deer Association with her column entry "Whose Deer Is It?" (December '97). The "Behind the Badge" column made its debut in January '98, and these stories about the experiences of WCOs from around the state are popular with readers.

LAW ENFORCEMENT

J.R. Fagan, Director

DURING the fiscal year, bureau personnel provided training to 27 members of the Minor Judiciary on the Game and Wildlife Code and our regulations. The training included criminal procedure, search warrants, juvenile laws, crimes code, and various court decisions and how they interact with our laws and policies.

The deer/elk deterrent fencing program continues to be available to those landowners who are experiencing excessive damage to crops, orchards and nurseries. This fencing program has proven to be very effective in significantly reducing damage. Landowners agree to keep their lands open to public hunting and trapping in return for this fencing assistance.

During the past fiscal year, fencing was provided to 11 applicants. Materials for these enclosures totaled \$30,210, while construction costs amounted to \$20,326. Applicants paid half the cost of construction. If laid end-to-end, these fences would stretch 9½ miles.

A total of \$3,352 was expended from the Game Fund to supply and erect 15 bear deterrent fences to qualified beekeepers. An additional \$5,546 was expended to pay claims for damage done to bees, livestock and poultry by bears.

Requests were received for 68 Administrative Review Hearings, of which 60 were scheduled and heard. Forty-seven pertained to hunting license revocations; the remaining 13 involved license issuing agents, deputy wildlife conservation officer trial boards, special permit denials/recalls, and disputed bear damage claims.

During the year, 40 persons were denied hunting and furtaking

privileges for failing to respond to a citation, and 448 individuals had their privileges revoked for not paying their penalty in full within the required 180 days. Following notification to these 488 individuals, 146 met their obligation and their privileges were restored.

With our ever increasing number of vacancies in the field, our wildlife conservation officers and deputies successfully prosecuted 9,589 cases in fiscal year 1997. Not to be overlooked were the 7,474 written warnings that were also issued during that time period. The number of warnings was above the 3-year average of 7,340.

As an additional deterrent for violating the Game and Wildlife Code, there is a possibility that an individual may lose the privilege to hunt and take fur in Pennsylvania. The Game and Wildlife Code provides for mandatory revocation for a variety of violations, including the selling of wildlife, killing wildlife at night and the most serious, individuals involved in hunting incidents where another person is injured or killed.

The Commission may also impose revocation for any violation of the Game and Wildlife Code. In an effort to be consistent, the PGC has administrative guidelines for specific violations of the Code relating to revocation. These particular violations are published in the *Hunting and Trapping Digest* to give our hunters a better understanding of the circumstance that involve revocations. The Commission acts on these types of revocations at its scheduled meetings each year.

Firearms proficiency is a valuable part of any WCO or deputy on-going training program. In addition to required annual qualification and certification, the agency also encourages our officers to be involved in other firearms related activities. One of these examples includes the annual Pennsylvania Game Commission revolver championship, which was held at Scotia Range in Centre County last August. A total of 89 WCOs and deputies participated in this activity. Gary Toward from Westmoreland County was the top WCO with a score of 489-34x, while Norman Carr from Fulton County fired a 493-34x to place first in the deputy category.

During September, officers from the Pennsylvania Game Commission participated in the National Police Shooting Championship, which was held in Jackson, Mississippi. The goal of the team, which is comprised of WCOs from across the state, is to win the Camp Trophy. Our team did well and when the smoke had cleared and the scores tallied, the 4-man Game Commission team placed second in the nation.

Also, in August four members of the shooting team competed in the Keystone Games. These shooters came away from the competition with 17 individual medals.

In addition to these accomplishments, three Game Commission officers were named to the "Governors Twenty," which is the top twenty men and women law enforcement shooters in Pennsylvania. Thomas Littwin was ranked in 4th place, Steve Bernardi in 7th place, and Gary Packard landed the 8th place position of this distinguished group.

Since 1983, the Pennsylvania Game Commission has trained two



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staff members in the Bureau of Law Enforcement as armorers. Initial training for an armorer is one week at the Smith and Wesson Training Academy in Springfield, MA. To maintain certification, the armorer must spend a week at the academy every four years.

Annually, each issued Smith and Wesson revolver is disassembled, cleaned and checked for malfunctions. The revolver is also checked to make certain it is still within factory specifications. If it does not meet factory specifications; it is then repaired by the armorers.

The Game Commission's two-way radio system upgrade began in early April with the first tower completed at the Princeton tower site

in Lawrence County. Additional towers were erected at Franklin Headquarters, Polk, Waterford, Youngsville, Port Allegany and Cherry Springs. With the exception of Franklin Headquarters, new environmentally controlled communications shelters were also installed at these sites. There are four remaining sites, which need to be constructed in the near future. It appears the completion of the radio upgrade will be in early 1999.

Due to the lack of a license increase and budget restraints, the PGC has delayed purchasing new replacement mobile and portable radios for our field officers.

The bureau continues to expend considerable time and effort in the application review and issuance of special permits. This program increased by over 3,000 permits this year with a total of over 22,000 permits on active status in our computer system in 32 different categories. These permits generated over \$295,000 in revenue for the Game Fund. Throughout the year, our field officers, regional staff and headquarters personnel expend a great amount of time and effort in reviewing applications, inspecting facilities, annual reports, and related records concerning special permits. Note the table listing the permits issued.

Permit Type	Number of Permits
Airport Safety - Wildlife Control	19
Bird Banding	59
Wildlife Collecting	43
Capture and Transport	7
Disabled Persons - Crossbow	13,811
Disabled Persons	5,129
Regulated Hunting Grounds	58
Vehicle as a Blind	4,720
Dog Training Area	95
Educational Exhibit of Wildlife	30
Falconry - Apprentice	19
Falconry - General	48
Falconry - Master	74
Fur Dealer - Nonresident	7
Fur Dealer - Resident	63
Fox Hunting	31
Wildlife Menagerie	114
Wildlife Propagation	972
Regulated Hunting Grounds	
Commercial	69
Private	191
Raptor Propagation	8
Wildlife Rehabilitator	23
Wildlife Rehabilitator - General	11
Wildlife Rehabilitator - Novice	13
Salvage	222
Special Retriever Dog Training	24
Taxidermy - General	938
Taxidermy - Game Birds	2
Taxidermy - Fish	5
Taxidermy - Big and Small Game	1
Wildlife Dealer	21
Wildlife Possession	75
Wildlife Pest Control	385



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Game Lands Planning and Development Division

Budget reductions have hampered efforts to reach habitat management goals on state game lands. Nonetheless, the Food and Cover Corps and land managers planted 2,120 acres of grain and 1,504 acres of grasses and legumes for wildlife. About 4,426 acres of wildlife food plots were limed and fertilized to improve wildlife food production, 12,959 acres were mowed to maintain high quality grasses, 1,014 acres of field borders were cut to provide nesting and escape cover, and 25,564 trees were pruned to improve fruit and seed production. Thirty-three miles of roads were constructed and, finally, 893 new nest boxes and 295 waterfowl nest structures were erected.

Partners for Wildlife

Through this cooperative program involving state and federal agencies, conservation groups and landowners, wetland restoration projects were completed on SGLs 69, 85, 151, 154, 199, 272 and 306 in the Northwest Region, SGLs 160, 242 and Indian Rock Dam in the Southeast Region, and SGL 169 in the Southcentral Region. These projects restored approximately 328 acres of previously drained wetlands.

Pennsylvania Conservation Corps

The Pennsylvania Department of Labor and Industry, through the Pennsylvania Conservation Corps (PCC), provided \$216,000 in funding and nine work crews to assist with habitat projects such as planting seedlings and warm season grasses, and erecting streambank fencing. Crews also constructed storage buildings, painted and made repairs to Food and Cover Corps headquarters, installed gates and painted and maintained game lands boundary lines.

Howard Nursery

The agency's nursery produced 4,270,425 evergreen and deciduous seedlings for planting on game lands and public access lands. Thirty-five species of important food and cover species are grown at and distributed from the nursery. The wood shop produced 3,191 bluebird boxes, 9,449 bluebird box kits, 535 wood duck boxes and several hundred squirrel, kestrel, barn owl and bat boxes for placement on game lands.

Federal Aid Habitat Restoration Program (Pittman-Robertson Funds)

The Federal Aid in Wildlife Restoration Act celebrated its 60th anniversary this year. The act is commonly known as the Pittman-Robertson Act or P-R Act after its sponsors, Senator Key Pittman from Nevada and Congressman A. Willis Robertson from Virginia. The U.S. Fish and Wildlife Service administers the Federal Aid in Wildlife Restoration Act. Since being signed into law on September 2, 1937, by President Franklin D. Roosevelt, the program has been responsible for collecting and disbursing more than \$3 billion nation-

Through Partners for Wildlife, 328 acres of wetlands were restored.



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More than
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ing.

wide for wildlife conservation projects. Pennsylvania, to date, has received \$124.6 million.

The original purpose of this act was to provide a stable and secure source of funding to the states for the management, conservation and enhancement of wildlife. Funds for the program are derived from an 11 percent federal excise tax on sporting arms and ammunition, 10 percent on handguns, and an 11 percent tax on certain archery equipment. Funds are then apportioned to states based upon a ratio combining land area, number of licensed hunters and total population.

To secure P-R funding, state wildlife agencies submit project proposals to the U.S. Fish and Wildlife Service for approval. If approved, the agency receives up to 75 percent of the costs. The Game Commission had four approved projects this year that supported habitat management and maintenance activities on state game lands and Cooperative Public Access Program lands. The Game Commission's reimbursement during the 1997-98 fiscal year totaled \$7,151,253.

Land acquisition is an eligible P-R funded activity, and the Game Commission has used this source of funding to expand our game lands system. One of our first purchases with P-R funds was 783.1 acres in Indiana County (SGL 153) in 1938 for \$2 per acre. The federal share of the purchase was \$1,174.65 with the Commission's state match or 25 percent of the total cost of the project equaling \$391.55. Since the Federal Aid in Wildlife Restoration Act's inception 60 years ago, the Game Commission has purchased 184,200 acres of wildlife habitat with Pittman-Robertson funds.

Public Access Program

The success of the Commission's three Cooperative Public Access Programs can be largely attributed to the generosity of the landowners who enroll their properties, and to all the Game Commission representatives, especially the Food and Cover Corps employees and the deputy wildlife conservation officers who promote these programs and uphold the Commission's responsibilities under each agreement. Currently between the Farm Game, Safety Zone and Forest Game Programs, 30,451 landowners have opened 4,464,983 acres to public hunting.

Some of the benefits provided cooperators by the Commission include a free subscription to *Game News*, tree and shrub seedlings, wildlife food and cover seed mix, increased law enforcement protection, signs, technical advice on wildlife conservation and — depending on funding and personnel constraints — labor to help cooperators develop wildlife habitat on their properties.

The personal relationships we have developed with these cooperators over the years has increased the Commission's effectiveness in initiating streambank fencing and other farmland habitat recovery efforts.

These 4.4 million acres of private lands open to public hunting are an essential part of our hunting heritage and continue to provide increased hunting opportunities for all Pennsylvania sportsmen. All three programs strive to create good relations between landowners, hunters

and the Commission. Only with genuine cooperation between all parties can we continue to keep these properties open to hunting.

Streambank Fencing Program

With funding from the Department of Environmental Protection (DEP), we contracted with a fencing contractor to install electric streambank fencing on public access cooperators' properties protecting approximately 37,180 feet of streams by excluding livestock. The 19 streambank fencing agreements were located within the Chesapeake Bay Drainage in the following counties: Bedford (5), Blair (5), Centre (1), Cumberland (2), Franklin (4), Fulton (1), and Mifflin (1).

Forest Management Operations

To maintain optimum habitat diversity on our forested game lands, 7,748 acres were scheduled for commercial timber cutting operations. To enhance regeneration, another 917 acres were treated with herbicide to remove ferns, striped maple, spicebush, and low quality beech brush hampering the establishment of more beneficial species. With our two Upland Vegetation Management machines, 1,029 acres were treated by cutting and shearing advanced growth of woody vegetation so it could revert to an earlier successional, low ground cover stage.

Commercial timber sales on 8,174 acres produced revenues of \$11,299,641, a decrease of \$1,049,050 from the previous year's receipts. These activities yielded more than 25.8 million board feet of logs and 138,300 tons of pulpwood.

A road network to carry the heavy equipment and comply with the Clean Streams Act and other environmental protection regulations was designed and supervised by our forestry staff. Logging contractors completed 73 timber sale contracts during the year, improved 50.1 miles of haul roads, constructed 17.9 miles of new roads (which became wildlife food strips after seeding) and placed 265 culverts.

Land Purchases - Real Estate

Because of our current budget crisis, the Commission is no longer budgeting monies for land acquisition. Through land exchanges, coal lease-land exchanges and donations, the Commission acquired 3,890 acres in 21 counties (of that total, 115 acres were land donations), bringing the agency's total State Game Land acreage to 1,386,301. We now have 293 separate game land tracts in 65 counties. Our four 3-man survey crews perform boundary line surveys for all land acquired by the Commission. They also survey disputed boundary lines and provide topographical surveys.

Payments in Lieu of Taxes

Local government bodies received \$1.20 per acre in-lieu-of taxes, as required by Act of May 17, 1929. During the fiscal year \$1,665,254.88 was divided into three equal payments to the county, school district and township where game lands are located.

Environmental Planning and Habitat Protection Division

Mineral Recovery and Management Program

Recovery of oil, natural gas, coal and other minerals from Pennsylvania is a legitimate secondary use of these public lands. The Com-



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system.*



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The PGC received \$821,344 in royalties and 9,086 acres valued at \$3,105,372.

mission is granted authority to carry out mineral recovery operations in the Game and Wildlife Code. All proposed projects must pass rigid scrutiny at various staff levels to ensure that these projects pose no environmental threat and, on balance, will complement the Commission's long range habitat improvement plans for the particular game lands. Coal recovery projects in particular are designed around a re-mining and abandoned mine land recovery effort.

Important revenues are produced as well. In the 1997 fiscal year, the program produced \$77,416 in oil/gas land rentals, \$613,871 in oil/gas royalties, and \$130,057 in coal royalties. Even more significant, from coal lease land exchanges, we've received 9,086 acres valued at \$3,105,372.

Engineering & Contract Management Division

Eleven contracts were completed for a variety of building maintenance and fuel tank related activities. These included five contracts to maintain and preserve game land buildings and to construct one new storage building. Six contracts were required for the fuel tank program. This year's fuel tank program consisted of removing 27 old underground fuel tanks and installing 15 new above ground gasoline/diesel tanks.

Federal State Coordination Division

Multiple uses of state game lands, including the development of hiking trails, are fully encouraged when they are compatible with wildlife and the Commission's management programs. Through this division, an agreement was executed with the Mid-State Trail Association to extend the Mid-State Trail on SGL 97 in Bedford County. The division also assisted the Susquehanna Appalachian Trail Club in the development of the local management plan with respect to the management of the Appalachian Trail on SGL 211 in Dauphin County.

The division serves as the Commission's liaison with various state and federal agencies. For example, the Commission renewed the Memorandum of Understanding with the U. S. Forest Service for developing, maintaining and managing wildlife resources on the Allegheny National Forest in Elk, Forest, McKean and Warren counties. The division also represented the Commission on the Pennsylvania Chesapeake Bay Riparian Forest Buffer Steering Committee. The Chesapeake Bay Forest Buffer Initiative is an integrated and comprehensive approach for the conservation of riparian areas and to restore habitat on 2,010 miles of stream and shoreline in the Chesapeake Bay watershed by 2010.

WILDLIFE MANAGEMENT **Calvin W. DuBrock, Director**

OUR PURPOSE is to advise the Commission on wildlife management decisions. We monitor wildlife populations, human impacts on

wildlife and uses of wildlife, recommend and implement actions to restore and enhance wildlife populations, assess public opinions, conduct habitat management projects and raise pheasants for hunting.

In addition to the following accomplishments, this year bureau staff helped host the Northeast Fish and Wildlife Conference; participated in a series of agricultural education visioning workshops; helped develop the agency's strategic plan; coordinated deer management outreach committee functions; and worked with the Wildlife Management Institute in developing a deer management working group.

Wildlife Management and Research

Statistical and Survey Support

Last year more than 22,000 hunters and furtakers were sent Game Take and Furtaker surveys. Squirrels and woodchucks topped the 1997-98 harvests, with more than 1.1 million animals each. For most of our furbearers, harvest and participation increased over the previous year. A more complete report is in the November '98 *Game News*.

In April-May, WCOs conducted the Woodcock Singing-Ground Survey, and in June, the Mourning Dove Call-Count Survey. Dove populations have continued to remain relatively stable. Woodcock populations, however, have declined more than 60 percent over the past 25 years.

In cooperation with the Pennsylvania Farm Bureau, landowners enrolled in the Deer-Damaged Farm Program and the new Deer Depredation Permit Program during 1996-97 were surveyed. Most (88 percent) landowners reported experiencing the same or more crop damage in 1997 compared to previous years. Forty-five percent were satisfied with the Deer-Damaged Farm Program, and 62 percent of farmers provided depredation permits were satisfied with that program. On a scale of 1 (poor) to 10 (excellent) the Deer-Damaged Farm Program received a rating of 5.5, and the Deer Depredation Permit Program a 6.9. Ninety percent of landowners indicated they would enroll in the Deer-Damaged Farm Program again, and 85 percent of permit holders said they would enroll in the Deer Depredation Permit Program again.

Forest Wildlife

During 1997, personnel tagged 566 bears. Our preseason statewide bear population estimate of 10,057 was larger than any previous year. In 1997, 116,946 bear licenses were sold, and hunters took 2,110 bears, a harvest rate of 20.8 percent, or about one of every five of the 566 animals tagged prior to the season. Compared to the average of the three previous years (1994-1996), the 1997 bear harvest was up 18 percent, the harvest rate was up one percent, and the number of bear licenses sold was up 28 percent.

Wild turkeys continue to do well. The 1997 spring harvest (30,956) and fall harvest (37,398) were both our third best ever. Summer turkey sightings by wildlife conservation officers were essentially the same in 1997 as in 1996 (16.5 and 16.4 turkeys seen/1,000 miles, respectively). The total harvest for the 1997 hunting license year (68,354) was 20 percent below the 1995 hunting license year; however, 1997



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At least nine calves were born last summer to elk relocated to western Clinton County.

was the third consecutive year that total harvests exceeded 60,000 turkeys. Data for our 1998 spring harvest are still preliminary, but we have received 10 percent more spring turkey harvest report cards than we did during our best spring, in 1995.

About 790,000 deer remained following the 1997-98 hunting seasons, about three percent less than the winter before. Then, during spring surveys, field officers found only 0.08 dead deer per mile of survey route. This is well below previously recorded losses. After accounting for normal, between-season losses, the summer fawn crop raised the 1998 fall population to just over 1.2 million deer.

Last year, for the regular firearms seasons, hunters reported only 47 percent of the antlered deer taken and 48 percent of the antlerless deer. Evaluating archery and muzzleloader reporting rates, we learned that archers reported 57 percent of the deer they harvested. The sample size from muzzleloader kills was too small to estimate a reliable reporting rate.

Game Take Survey estimates for the 1997-98 season indicate that about 198,000 hunters took 188,000 grouse. Besides this survey, several hundred dedicated grouse hunters provide annual reports about their days afield. During the 1997-98 seasons, cooperators hunted 28 hours, flushed 39 birds and bagged 2.5 grouse. Their average flushing rate was 1.39 grouse per hour, about the same rate as in 1996-97 and 10 percent below the previous 10-year average of 1.54. Although cooperators hunted about the same number of hours and encountered the same number of birds as the year before, they bagged 23 percent fewer grouse.

Since the mid-'70s we've been evaluating grouse populations in response to periodic clearcuts on SGL 176 in Centre County. For comparison, populations on adjacent, unmanaged areas are also being monitored. The 1997 fall flushing rate on the cut area was 171 percent higher than on the uncut area. Likewise, the 1998 spring flushing rate on the cut area was 90 percent higher and the 1998 spring drumming activity centers were 91 percent higher. The habitat treatments have resulted in drumming grouse activity centers in mixed-oak woods where none existed before the cuttings. Additional cuts will be made in 1999-2000.

In January, the elk trap and transfer project was initiated to expedite elk range expansion, to reduce agricultural damage in the traditional range, and to reduce elk numbers where the herd has exceeded desired population levels.

The elk, which were trapped last February and released in western Clinton County in late March, are currently using strip mines, power and gas lines, and riparian edges. Last summer, at least nine calves were born to translocated cows. We are continuing to monitor these animals to determine habitat preference, home range development, survival and reproduction.

Furbearers and Farmland Wildlife

The Sichuan pheasant project was terminated this year. Survival, habitat use, nest success, and overall population trends were not dif-

ferent between Sichuan and ring-necked pheasants. Neither subspecies showed any promise of establishing self-sustaining populations.

Possibly the last hope for restoring Pennsylvania's pheasant, quail and other grassland bird populations lies with the Conservation Reserve Enhancement Program (CREP). CREP seeks to increase rental rates paid to farmers to idle land for up to 15 years. The proposed program will initially target 100,000 acres in southeastern and southcentral Pennsylvania.

While the focus of CREP will be to reduce soil erosion and improve water quality in the Susquehanna and Potomac watersheds, it also represents our best opportunity to provide secure nesting and winter cover for wildlife on intensively farmed areas.

Last winter, 23 fishers were released in the Allegheny National Forest. As reintroduction goals have been met, this will probably be the last year fishers are released here. Fishers in southwestern Pennsylvania, from West Virginia, have slowly expanded their range into Somerset, Bedford, Cambria and Westmoreland counties.

The 1997-98 beaver harvest was a record 12,628. Warm winter weather and high pelt prices greatly increased trapper effort and success. We hope to gradually decrease beaver populations over the next few years. Season length, bag limits, and type and number of trapping devices permitted were liberalized to give trappers more opportunity to harvest beavers in problem areas.

As a result of the December 1997 "understanding" between the United States and the European Union (EU) concerning wild fur regulation, the states are committed to participate in a national trap-testing and outreach program named "Best Management Practices for Trapping" (BMPs). The federally funded BMP program seeks to identify best trapping devices based on animal welfare, efficiency, safety and practicality. BMPs will be recommended to state agencies for incorporation into trapper education programs and should be available by 2002. Pennsylvania participated in testing three trap types for coyotes during the fall of 1998.

Migratory Game Birds

Based on our breeding pairs surveys, the estimated statewide breeding wood duck population was 52,368 pairs — a decline from the record high in 1997 — but still well above the 10-year average. Mallard populations remained similar to the long-term average at 92,453. The Canada goose estimate was 196,661, which was similar to last year. The population may be beginning to stabilize at around 200,000 birds, due to our resident Canada goose seasons. Pennsylvania's Canada goose harvest hit a record 104,000 in 1997-98. Pennsylvania now accounts for over one-third of the Atlantic Flyway Canada goose harvest.

Preseason duck banding continued in cooperation with the Atlantic Flyway. Banding information is used to determine timing and distribution of the duck harvest, survival, harvest rates and migration patterns, and allows evaluation of changes in hunting regulations. During the 1998 preseason banding period 5,633 ducks were banded including 3,830 mallards, 93 black ducks, and 1,665 wood ducks.



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*A record 12,628
beavers were
taken in 1997-
98.*



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*For the fifth
year, in coopera-
tion with Bat
Conservation
International,
we conducted
two 5-day
workshops.*

During June, 2,000 Canada geese were banded in Pennsylvania. The subsequent recoveries of these banded geese will allow us to further evaluate and refine resident goose seasons. These data, along with leg band recoveries and morphological measurements of harvested birds enabled us to convince the Atlantic Flyway Council and USFWS to expand Canada goose hunting opportunities throughout most of the state in 1998.

The status of migrant, Atlantic Population Canada geese is of great interest to Pennsylvania goose hunters. The season on AP geese has been closed since 1995 because of population concerns. The Game Commission has provided personnel and funds to conduct surveys, reproductive studies and banding to determine factors limiting this population of geese, once the largest in the Atlantic Flyway. It is hoped this will lead to better management of AP geese and resumption of traditional fall hunting seasons.

This year we produced a brochure, "Managing Your Wood Duck Nest Boxes," that covers placement, maintenance and monitoring of wood duck nest boxes. A new guide to Migratory Game Bird Hunting Regulations was also produced for the 1998-99 hunting season.

Research began this year to examine the effects of hunting on local woodcock. The study is part of a cooperative effort with the U.S. Fish and Wildlife Service, Biological Research Division of the U.S. Geological Survey and Maine, Vermont and New Hampshire. There were 106 woodcock fitted with radio transmitters, and the birds were monitored throughout the fall and into the hunting season to estimate survival between hunted and non-hunted areas.

We also cooperated in a lead mortality study in mourning doves. More than 320 dove carcasses were collected from hunters and will be examined for the presence of ingested shot and lead levels in body tissues to provide baseline information. Currently, little is known about lead exposure in mourning doves and other upland game birds.

Wildlife Diversity

A new booklet, *Woodcrafting For Wildlife: Homes for Birds and Mammals*, was introduced last year. It features directions for building 22 nest boxes and other structures that will accommodate 41 species of wildlife. This book is especially useful for high school and middle school industrial arts classes, vocational agriculture classes, and in workshops or projects by conservation agencies and civic groups.

For the fifth year, we cooperated with Bat Conservation International in conducting two 5-day workshops. Participants visit a gated mine that houses all six species of bats that hibernate in Pennsylvania. They also visit the largest maternity colony of little brown bats known in the northeastern U.S., with more than 18,000 counted last summer. Near this site they viewed a bat condo, a large bat box designed to accommodate 6,000 bats. At night, students trapped bats in mist nets, listened to bat calls with a special recorder and, with a night vision scope, observed pre-hibernal swarms of bats.

Woodrats are a threatened species here, and many islands and corridors of rock that had supported them no longer do so. Between June

1, 1997, and May 12, 1998, 45 potential woodrat sites were surveyed for woodrat sign. Of these sites, 23 had no evidence of use by woodrats, three had been used but are now inactive, and 19 showed recent use. Through May 12, 1998, PGC surveyors visited 382 sites with evidence of current (243 sites) or past (139 sites) woodrat use. These sites belong to 46 active and 56 inactive (locally extinct) colony areas. Based largely on topography and spatially related colony areas, 20 metapopulation areas have been designated. Five of these large areas no longer support woodrats. Seven more, represented by one or two small (<6 sites) colony areas are endangered.

The attic of an abandoned, wood-frame church on the edge of Canoe Creek State Park is a summer roost for about 14,500 little brown bats. In 1993, to protect this exceptionally large maternity colony, Wild Resource Conservation Funds were used to purchase the church. Since then it has been managed by the Bureau of State Parks and the Game Commission. In July 1997, two lactating Indiana bats, a federally endangered species, were discovered. The church is situated near the state's largest known bat hibernaculum, an old limestone mine housing six bat species and over 13,389 bats, including 158 Indiana bats. This summer discovery represents the first lactating Indiana bats found in Pennsylvania, and only the third record of reproductively active females of this species in the eastern U.S. maternity range. This also is the first record of lactating Indiana bats found sharing a maternity roost with the common house bat. Finally, and this has significant implications for house bat management, this is the first record of lactating Indiana bats found in a building. Normally they're found in hollow tree limbs or under exfoliating bark.

Summer bat roosts in manmade structures are vulnerable to loss and disturbance. The Game Commission is trying to find and protect all potentially vulnerable bat roosts. Last year, with the help of more than 32 volunteers, 22 sites were visited and 35,603 bats counted. Twelve new sites were found, with three containing more than 1,000 bats. Three other new sites contained 300 to 1,000 bats. Because bats consume large numbers of insects, protecting their summer roosts benefits landowners and the surrounding community. Informal agreements have been arranged with five landowners to protect the bat populations on their properties. Another seven sites are on state or federal property, and protected by the respective agencies. All of our bat census information has been entered into the Summer Bat Concentration Database, which currently contains 173 records for 87 individual survey sites.

Pennsylvania continues to be foremost in all aspects of bat conservation. During the past year, a record 87 hibernacula sites were surveyed. These included 21 sites that had been surveyed in previous winters. Forty-four of 60 previously unsurveyed sites contained bats. To further define the requirements of hibernating bats, biologists from Penn State and the PGC examined small caves, mines and other non-traditional sites such as tunnels, large road culverts and dam spillways. When hibernating bats were found, the immediate area was



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*Four wading
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to the state's
endangered
species list.*

examined to learn the specific temperature and humidity needs of bats. This information will indicate which hibernation sites provide the best habitat for bats and, therefore, need the highest degree of protection. Winter surveys are also aimed at finding new populations of the federally endangered Indiana bat. Although no new sites were found, a site containing 1,560 hibernating bats, of four different species, was found less than 10 miles from a known Indiana bat hibernaculum. Protecting this site, we believe, will give Indiana bats another site to hibernate in as its population grows. As of 1998, the Bat Hibernacula Database has grown to include 612 records for 429 sites.

With information about hibernating bats, we've developed a "Bat Hibernacula Management Plan" to establish guidelines for protecting important hibernacula. Sites will be monitored and gates will be built at important sites that remain unprotected. Landowner agreements limiting entrance to sensitive winter hibernacula and educating the general public as to the many benefits of bats are other ways to protect bats.

The Wildlife Diversity Section's cooperation with the Pennsylvania Natural Diversity Inventory (PNDI) continues to help assess the state's diverse wildlife. More than 25 records concerning recent occurrences of mammals such as the northern long-eared bat and the eastern woodrat have been relayed to PNDI, so this important program can remain as up-to-date as possible. This data tracking system permits developers to understand where important plants and animals may occur, so they can make every effort to construct plans that will lessen the impact of future development on fragile habitats instrumental to the continued survival of the state's wildlife heritage.

The Terrestrial Mammal Survey of Pennsylvania was continued this year. This survey is primarily aimed at finding occurrences of "Special Concern" terrestrial mammals. Although no new records for "Special Concern" species were gathered, more than 600 specimens of 15 mammal species were collected from 18 sites in five counties. Those specimens were prepared and are housed at the Vertebrate Museum at Shippensburg University. Twenty-five specimens of important bird and mammal species, such as the fisher, were also added to the PGC Teaching and Reference collection, which now includes 76 mammals and 27 birds.

As a result of a review completed every five years, the Pennsylvania Biological Survey's Ornithological Technical Committee recommended a major revision in Pennsylvania's list of endangered and threatened birds. Four wading birds — American and least bitterns, great egret and yellow-crowned night-heron — were downgraded from threatened to endangered, because of deteriorating or precarious populations. Dickcissel was moved to threatened, from the candidate list, based on a small population in a few southcentral counties. To reflect its continuing recovery, the osprey was upgraded from endangered to threatened. The common tern was moved from extirpated to endangered, because of nesting attempts at Presque Isle State Park.

Endangered peregrine falcons continued a slow recovery here. New



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pairs were established in Wilkes-Barre and Williamsport, and a pair continued in Harrisburg, but no eggs were laid at these sites. The males of the Wilkes-Barre and Williamsport pairs had been released at the Williamsport hack site in 1996. The appearance of a new, unbanded adult female at the Gulf Tower nest in Pittsburgh indicates that the first female was replaced and partly explains the unusually early nesting activity there this year. The new female was banded along with her four nestlings. A nest tray placed on Philadelphia's City Hall in 1995 was occupied by a pair of falcons in 1998 and produced two young. Pairs continued on the Girard Point, Turnpike, and Walt Whitman bridges along the Delaware River with mixed nesting success. No peregrines were released at hack sites within the state. To date, peregrines have not been found at historic cliff nest sites.

The bald eagle recovery has been nothing short of phenomenal. New pairs were established in Dauphin, Erie, Lancaster, Mercer, Northumberland, Tioga, Venango and Warren counties, and several pairs established in 1997 produced young for the first time. In all, 28 active pairs produced about 25 young.

Amid development pressures and Civil War reenactments, loggerhead shrikes continued nesting in Adams County. Three nests were found, producing several young. These birds are becoming increasingly isolated from other shrike populations. Shrikes have disappeared from neighboring areas in Maryland and numbers have dwindled in West Virginia and Virginia. In order to provide future nest sites, National Park Service personnel helped plant hawthorn and cedar trees, provided by the Game Commission, on the Eisenhower Farm National Historic Site.

Floating nest platforms were set out for black terns in the Hartstown Swamp area of SGL 214 in Crawford County. Although the platforms were not used, Edinboro University students documented three nesting attempts by two pairs and evaluated the impact of boating disturbance on nesting terns. Only one young fledged, and boating was not a factor in nesting success.

Several databases are being maintained to track these and other special concern bird records. As of June 1998, the special concern bird database contained 795 records of 24 species. A total of 435 colonial bird surveys at 184 wading bird colonies dating back to 1983 are maintained in a colonial waterbirds database. Great blue heron numbers continued to expand, with new colonies reported in Indiana and Lehigh counties. The number of great egret nests at the state's only known active colony, Wade Island in Dauphin County, continued to number about 150. Six nesting colonies of black-crowned night-herons were documented, supporting a total of about 340 active nests. More than half of that total, 181 nests, was in the Wade Island colony. These numbers are in contrast to an average of about 475 active nests per year between 1990-1997 and a statewide total of over 650 nests, including 268 at Wade Island in 1989. The black-crowned night-heron was added to the list of species of special concern, as candidate-at-risk — one step away from threatened — because of the state's small

*In 1997, 28
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25 young.*



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population size and declining numbers of nests.

Although few grassland birds are listed as endangered or threatened in Pennsylvania, nationally declining populations continue to draw attention to these species. Volunteers conducted Grassland Breeding Bird Surveys within the state for the 10th year. At least 32 routes were run, the majority of which submitted habitat data as well as bird counts. A new grassland bird project was begun in reclaimed surface mines in Clarion County — the Mid-Appalachian Grassland Initiative (MAGI). Its mission is to promote the conservation and appreciation of grassland communities through public education, recreation, research, monitoring and management programs focused on breeding birds in reclaimed surface mines of the middle Appalachian region. The vision for MAGI includes a network of large grasslands, intensively managed for wildlife, which will serve as demonstration areas. Intensive surveys counted 550 Henslow's sparrows (a regionally important species) in eight reclaimed mines in Clarion County.

During the year we contributed to the "Guide to Critical Bird Habitat in Pennsylvania" published by the Pennsylvania state office of the National Audubon Society. This publication presents the state's Important Bird Areas (IBA). The IBA program was supported by a Partnerships for Wildlife grant administered by the Commission. State game lands are included in almost 20 IBAs that support many of the state's rarest birds, such as bald eagles and American bitterns, and many impressive bird concentrations.

Propagation

The primary goal of the Game Commission's pheasant propagation program is to provide a top quality pheasant for hunting. Initially, the purpose of the pheasant stocking was to help establish self-sustaining populations. However, studies have shown that not enough

survive to establish viable populations.

In the 1997-98 fiscal year, we operated four game farms and released 217,733 ring-necked pheasants. In addition, sportsmen's organizations were provided 4,010 day-old

pheasant chicks to raise and release, and another 806 chicks and 240 pheasant eggs were given to schools and organizations for educational projects. A total of 12,300 surplus day-old hen chicks and 3,600 surplus eggs were sold for a total of \$6,360, which was deposited in the Game Fund.

1997-98 Pheasant Releases

	Hens	Cocks
September releases	45,874	0
Fall hunting season releases	31,358	114,663
Late season releases	8,248	0
Spring breeders	16,312	1,278

PGC FINANCIAL REPORT

Ross E. Starner, Comptroller



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THE BALANCE SHEET and the Statement of Unreserved Fund Balance were prepared in accordance with Generally Accepted Accounting Principles (GAAP). The unreserved/undesignated balance in the Game Fund on June 30, 1998, computed on a GAAP basis, was \$29,303,501 a decrease of \$6,304,159 or 17.7 percent from June 30, 1997. Fiscal year 1997-98 revenue collections and prior lapses were exceeded by expenditures resulting in the decrease in the Game Fund balance.

Total fixed assets reported by the Game Commission as of June 30, 1998 were \$95,073,049. Fixed assets are reported at cost or estimated historical cost; no depreciation is provided. Donated fixed assets are recorded at fair market value at the time of donation.

All other schedules included in this report were prepared on a cash basis combined with an encumbrance budgetary system, and as such are consistent with that of the previous year. Actual revenue collected and credited to the Game Fund during the 1997-98 fiscal year was \$49,301,332, a decrease of \$3,024,221 or 5.78 percent over the previous year's actual cash receipts. The decrease was primarily due to a decrease in wood products sales of \$1,049,079. Antlerless deer license revenue decreased by \$691,493, mainly due to a decrease in license sales, while adult resident hunting license revenue decreased by \$335,063.

Partially offsetting these decreases was an increase of \$151,232 in resident bear license sales. Ground rentals and royalties from oil and gas leases increased by \$141,451.

Actual current year operating expenditures and commitments totaled \$58,791,137, an increase of \$4,309,622 or 7.9 percent from last year. Salary and benefits decreased by \$184,577, while land purchases and acquisition costs decreased \$291,864. Pheasant feed decreased by \$398,734 as a result of the closing of the Eastern Game Farm.

Offsetting these decreases was an increase in radio and communications equipment purchases and contracted maintenance services of \$5,161,486. The Commission is currently in the process of installing a radio system in the western region. Wildlife habitat seedling and plantings increased by \$385,045.

The Game and Wildlife Code stipulates that at least \$1.25 from each resident hunter's paid license fee is to be used solely for the selection, restoration, rehabilitation and improvement of all land under the control of the Commission, to provide and improve habitats for the purpose of producing natural propagation of wildlife. The number of resident licenses sold during the 1997-98 fiscal year, as reported by the Game Commission, totaled 963,557. This mandated that a minimum of \$1,204,446.25 be expended for the above purposes. The ac-

*Adult resident
hunting license
revenue de-
creased by
\$335,063.*



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tual amount expended and committed during the fiscal year for these purposes, as provided by the agency was \$3,102,252.92, an excess of \$1,897,806.67 over the law's requirement. The code also states that \$2 of each antlerless deer license fee is to be used solely for cutting or otherwise removing overshadowing tree growth to produce underbrush sprouts and saplings for deer food and cover on game lands. Antlerless deer licenses sold during the 1997-98 fiscal year, as reported by the Game Commission, totaled 677,565. This mandated that a minimum of \$1,355,130 be expended for the above mentioned purposes. The actual amount expended and committed during the fiscal year for these purposes, as provided by the agency, was \$2,495,471.28, an excess of \$1,140,341.28 over the requirement. The money collected for the above are now deposited into two separate restricted revenue and expense accounts in accordance with Act 19 of 1996. Expenses in excess of the funds collected are absorbed in the Game Commission operating executive authorization.

Game Fund Balance Sheet June 30, 1998

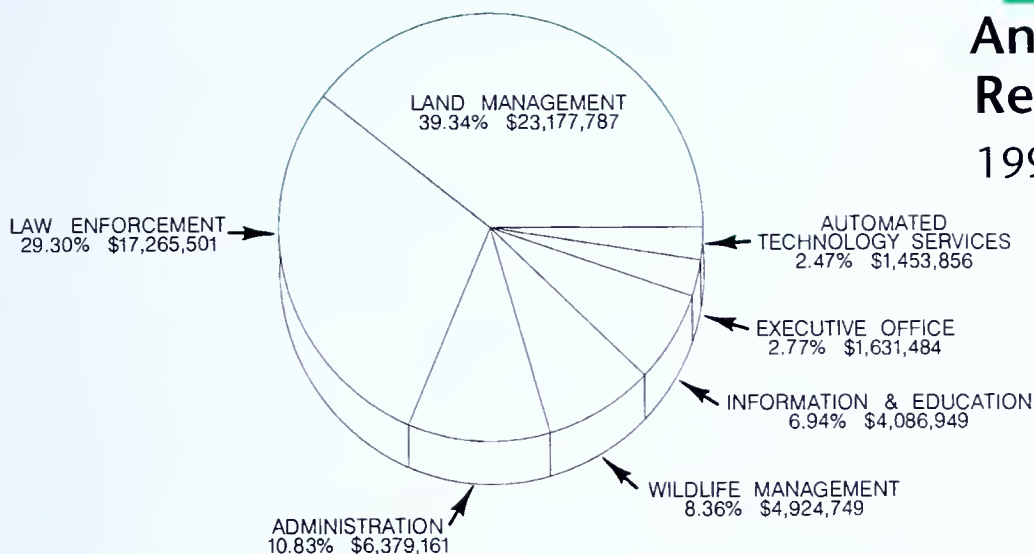
Assets	
Cash with treasurer	\$398
Cash in transit	2,335
Cash-advancement accounts	265,915
Investments	32,673,000
Accrued interest receivable	150,899
Grants receivable – federal government	2,734,161
Fixed assets	95,073,049
Due from other funds	259,000
Total Assets	<u>\$131,158,757</u>
Liabilities	
Vouchers payable	85,021
Accounts payable and accrued liabilities	3,991,262
Due to other commonwealth funds	313,000
Due to other governments	102,895
Total Liabilities	<u>\$4,492,178</u>
Fund Equity	
Reserve for current encumbrances	1,782,565
Reserve for restricted receipts	30,284
Reserve for restricted revenue	477,180
Fund balance unreserved/undesignated	29,303,501
Investment in fixed assets	95,073,049
Total Fund Equity	<u>\$126,666,579</u>
Total Liabilities and Fund Equity	<u>\$131,158,757</u>

continued on page 28

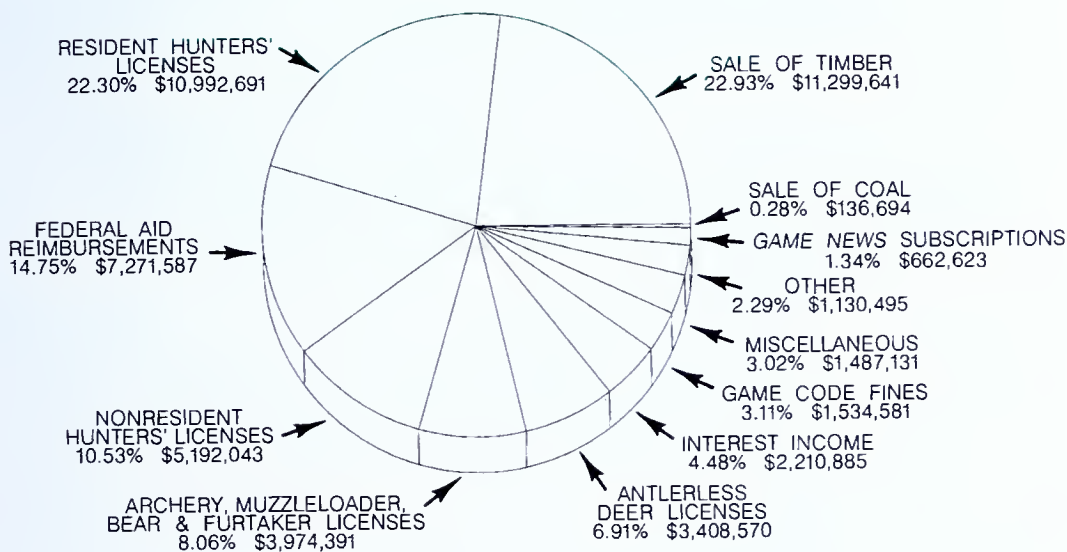
GAME FUND EXPENDITURES
\$58,919,487
FOR FISCAL YEAR ENDED JUNE 30, 1998



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GAME COMMISSION REVENUE
\$49,301,332
FOR FISCAL YEAR ENDED JUNE 30, 1998





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Game Fund Statement of Unreserved Fund Balance for the Fiscal Year Ended June 30, 1998

Fund Balance - Unreserved/Undesignated, June 30, 1997	\$35,607,660
Reserve for restricted receipts, June 30, 1997	29,874
Reserve for restricted revenue, June 30, 1997	605,474
Add: Actual cash receipts July 1, 1997 through June 30, 1998	\$49,301,332
Change in fair value of investments July 1, 1997 through June 30, 1998	43,000
Revenue earned as of June 30, 1997 and deposited in 1997-98	(3,975,852)
Revenue earned but not received as of June 30, 1998	
Due from other funds	259,000
License & Fees, miscellaneous	2,335
Interest on short term investment	150,899
Due from Federal Gov't (Grants)	2,734,161
Total revenue accrued but not received as of June 30, 1998	<u>3,146,395</u>
Total revenue earned during '97-98	48,514,875
Lapses from prior year appropriations	<u>1,468,525</u>
Unreserved-Undesignated Fund Balance Before Commitments and Expenditures	86,226,408
Deduct: Current year expenditures and commitments posted from 7/1/97 - 6/30/98	58,919,487
Reserve for restricted receipts	30,284
Reserve for restricted revenue	477,180
Expenditure accruals as of 6/30/98	4,471,242
Commitments liquidated against 6/30/98 expenditure accruals	(7,752,814)
Reversal of prior year commitments and expenditure accrual	777,528
Total expenditures, commitments and reserves	<u>56,922,907</u>
Fund Balance-Unreserved/Undesignated, June 30, 1998	<u>\$29,303,501</u>

Schedule of Actual Revenue Deposited in Game Fund Fiscal Year Ended June 30, 1998

Licenses and Fees	
Resident hunting — adult	\$9,758,028
Resident hunting — junior	498,764
Resident hunting — senior	486,221
Resident lifetime hunting — senior	249,678
Nonresident hunting	5,098,101
Nonresident hunting — junior	93,942
Resident bear	1,134,074
Nonresident bear	68,276
Antlerless deer	3,408,570
Archery	1,596,680
Muzzleloader hunting	416,789



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Landowner hunting license	6,045
Nonresident 7-day hunting	65,538
Resident furtaker license — adult	268,266
Resident furtaker license — junior	15,409
Resident furtaker license — senior	15,114
Senior lifetime furtaker license	7,207
Nonresident furtaker — adult	33,300
Nonresident furtaker — junior	1,883
Issuing agents' application fee	21,503
Special game permits	323,511
Right-of-way	361,706
Migratory game bird license	796
Transfer to general habitat improvement	(1,204,446)
Transfer to deer food and cover	(1,355,130)
Total Licenses and Fees	\$21,369,825
Fines and Penalties	
Game law fines	\$1,534,581
Total Fines and Penalties	\$1,534,581
Miscellaneous Revenue	
Interest on securities & deposits	\$2,210,885
Sale of timber & other wood products	11,299,641
Sale of coal	136,694
Ground rentals & royalties from oil and gas lease	676,889
Sale of <i>Game News</i>	662,623
Wildlife promotional publications and materials	111,149
Wildlife nongame fund	234,008
Waterfowl management: stamp sales and art print royalties	73,927
Sale of skins and guns	37,595
Other (game land map sales, sale of grain and hay, SPORT promotional publications, prior year expenditure refunds, sales tax and miscellaneous revenue)	406,632
Total Miscellaneous Revenue	\$15,850,043
Total Nontax Revenue	\$38,754,449
Restricted Receipts and Revenue	
Resident license fee — natural propagation of wildlife — general habitat improvement	\$1,204,446
Antlerless deer license fee — natural propagation of wildlife — deer food and cover	1,355,130
Miscellaneous restricted receipts and revenue	467
Total Restricted Receipts & Revenue	\$2,560,043
Augmentations	
Federal aid	\$7,271,587
State augmentations (sale of vehicles, PA conservation corps, donations, streambank fencing, PennDOT reimbursement)	715,253
Total Augmentations	\$7,986,840
Grand Total All Revenue in Game Fund	<u><u>\$49,301,332</u></u>



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**Expenditures and Commitments Current Operating Appropriations
for the Fiscal Year Ended June 30, 1998**

Salaries and wages	\$28,139,049
State share employee benefits and training costs	9,791,775
Land purchases and acquisition costs	5,866
Printing and advertising	1,536,697
Automotive repairs, supplies, and rentals	1,196,056
Payments to local municipalities in-lieu-of-taxes	1,660,657
Maintenance and improvements of building, grounds, and machinery	1,868,963
Payments to other state agencies:	
Comptroller services rendered	351,260
Auditing services	194,855
Civil Service and Personnel services	75,863
Purchasing services	94,754
Checkwriting and Disbursement services	15,203
Pheasant feed	102,091
Wildlife habitat seedlings and plantings	491,072
Purchase of motor vehicles	1,407,473
Travel and special conference expenses	497,863
Radio and communications equipment purchases and contracted maintenance service	5,377,195
Telephone expenses	526,951
Postage	503,625
Heating, power and light	563,493
Legal, appraisal, and consulting fees	1,222,900
Other supplies and services	356,674
Uniforms for Game Commission personnel	60,882
Office equipment, maintenance, rentals, and supplies	291,399
Purchase of equipment and machinery	642,792
Electronic data processing contractual services, rentals, and purchases	768,404
Educational supplies, literature, and classroom training equipment	394,307
Insurance - auto, liability, fidelity	127,826
Clinical services, laboratory and medical supplies	10,637
Payments to individuals for bear damage claims	10,072
Deer fencing	2,810
Payments to nonprofit institutions	202,946
Payments to institutions/individuals for research projects	95,280
Purchasing card expenses	203,447
Total Operating Commitments & Expenses	\$58,791,137
Other restricted expenses:	
Environmental assessment damage recoveries	128,350
Grand Total	\$58,919,487

**Game Fund Expenditures and Commitments by Program Area
July 1, 1997 through June 30, 1998**

Executive office	\$913,165
Comptroller operations	351,260
Assisting other agencies	27,220
Public works program	323,521
General administration	4,033,381
Personnel costs	5,586,072

Warehousing	64,885
Agency purchasing	362,923
Auto acquisition, maintenance, credit card cost	329,145
Office maintenance and services	504,262
Training costs	727,034
Licensing program	973,140
800 telephone service	31,007
Information & Education administration & planning	227,265
Public services	2,381,197
Publications	1,388,368
Hunter-Trapper Education program	370,807
Audio - visual program	426,233
Wildlife management program administration	1,049,660
Game farm operations	2,294,178
Wildlife research support services	67,734
Forest wildlife research program	770,483
Furbearer and farmland research program	135,022
Migratory game bird & waterfowl research program	276,031
Wildlife diversity research management program	252,242
Law enforcement program management & planning	1,234,616
General law enforcement	6,877,364
Animal damage complaints	615,331
Special permits	84,333
In-service training, law enforcement	570,675
Assisting other agencies' law enforcement	19,952
Radio system	5,500,120
General equipment maintenance	144,671
Damage to wildlife	27,305
Endangered species & nongame law enforcement	11,880
Information systems	1,526,502
Land management administration	3,415,787
Environmental review program	295,497
Land acquisition	2,885,837
Howard Nursery management	377,416
Herbaceous openings	1,104,667
Public access programs	1,248,948
Forest management	2,813,673
Food-producing improvements	514,534
Game lands construction & maintenance	5,444,221
Shooting range construction & maintenance	211,573
Total Operating Commitments & Expenses	\$58,791,137
Other restricted expenses :	
Environmental assessment damage recoveries	128,350
Grand Total	<u>\$58,919,487</u>



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Pennsylvania Game Commission Schedule of Fixed Assets June 30, 1998

Land and land improvements	\$74,773,893
Buildings & building improvements	10,733,100
Machinery and equipment	9,566,056
Total Fixed Assets	<u>\$95,073,049</u>

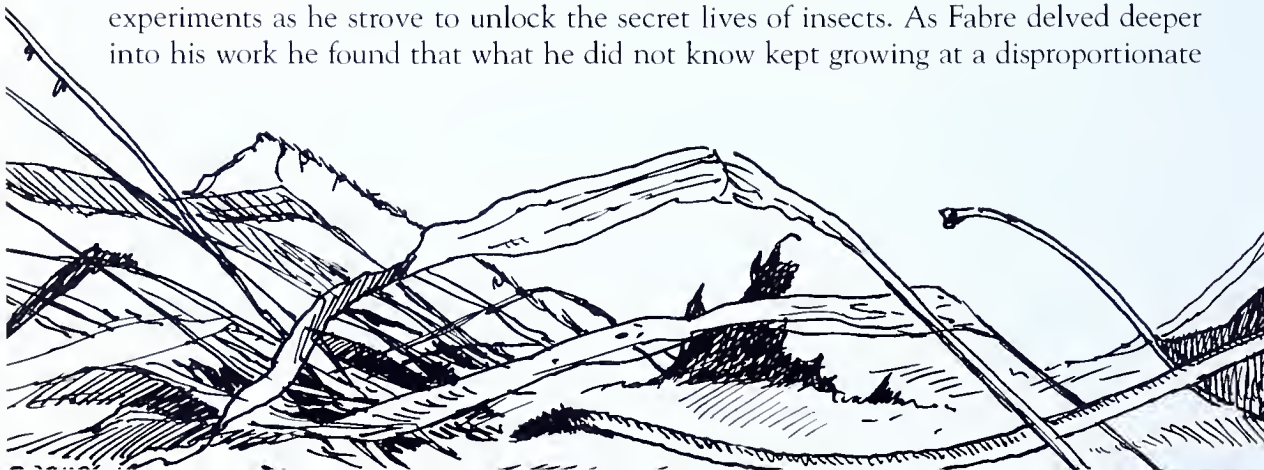
No Small Measure

ALMOST EVERYONE hopes for big things with the start of a new year. We are a society enamored with all that is grand and sweeping and epic. To get where we're going we prefer to take long strides, instead of many small steps. We are a nation of big dreamers, big thinkers. We like to do things in a big way. Advertisers and marketing people have seized upon this cultural anomaly and never let go. The largest billboard, the tallest sign, the loudest noise — all part of the American fabric — with no end in sight. Our landscape bursts at the seams with too much of too much.

This year I hope for small things, and intend to take lots of small steps to find them. My recent nature sketchbooks and field notes are comprised mostly of the smaller elements from lesser worlds, whereas those of earlier years focused on the larger, more obvious elements of the landscape. During the past few years, particularly since I started writing this column, I've rediscovered the challenge and excitement of exploring small worlds and wonders. I spend less time watching rivers and more time listening to rivulets. I look less at the boulder than the script of ancient lichen upon it. More time is devoted to searching for dragonflies than eagles, and I use the hand lens more often than binoculars.

By limiting the size of the area I explore, I am reminded of how I used to observe small things as a youngster. The world loomed larger then, even if the wilderness for that day was only a patch of weeds. I've had several people tell me that they used to see more insects when they were kids than they do now. I think this has something to do with eye level, as kids are physically closer to the earth and to shrubs and weeds than taller adults. This year I'll slow down and look closer; I won't travel as far, but my journey will be deeper.

January is the month of championship football. An aerial view of a stadium packed with 100,000 screaming fans may seem like a great concentration of life, but it pales in comparison with the spectacle of the teeming multitudes that comprise the complex universe of a small wetlands. Similarly, a sunflower in full bloom with its cast of insect actors rivals the glamour of any theatrical extravaganza ever conceived. Bumblebees, wasps, iridescent flies, ants, praying mantises, aphids — and goldfinches — are decked out in stunning costumes in this beautiful theater in the round. A row of sunflowers entralls me more than all the glitter and glitz of Broadway. Where lies the value in studying small worlds? J. Henri Fabre, the pioneering French entomologist, endured excruciating observational forays in the field and dedicated his life to comprehensive experiments as he strove to unlock the secret lives of insects. As Fabre delved deeper into his work he found that what he did not know kept growing at a disproportionate



PENN'S WOODS

SKETCHBOOK

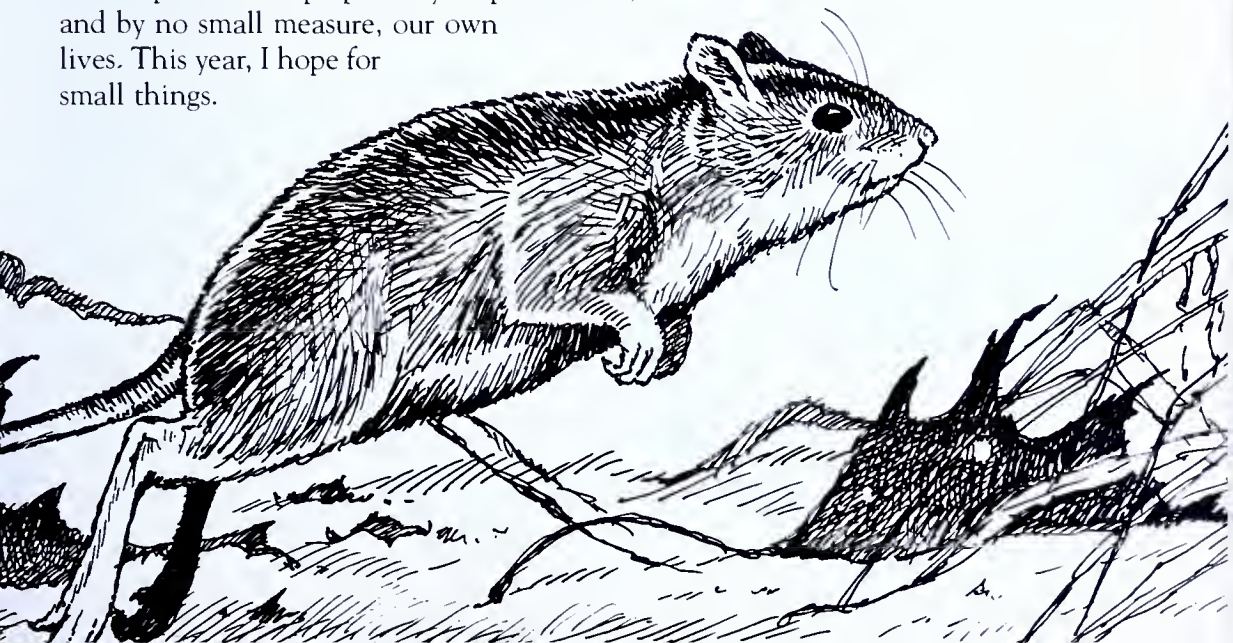
by
Bob Sopchick

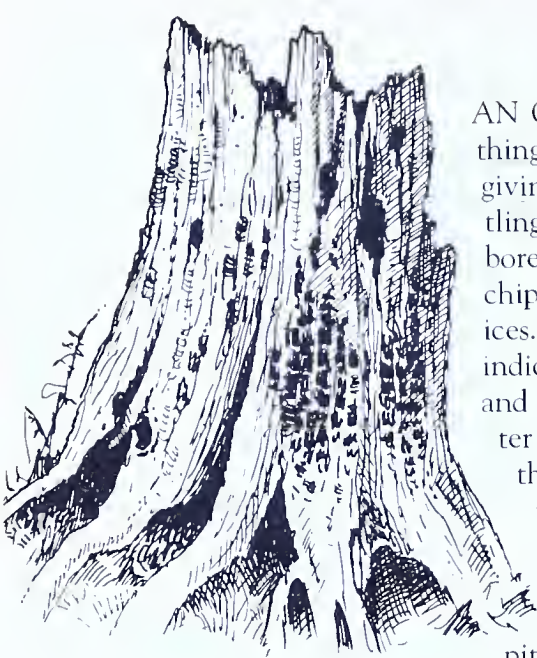


rate to what he had learned. He said to a friend, "Human knowledge will be erased from the world's archives before we possess the last word that a gnat has to say to us."

From time to time, nature moves in bold and dramatic ways. In Pennsylvania, a fire may quickly destroy hundreds of acres of dry forest, or a freak summer storm may stall in the uplands, concentrating millions of gallons of water in a small area within several hours, resulting in catastrophic floods in the river valleys below. In the space of a few minutes, a tornado touches down in a stand of stately trees, plows violently through the dark forest, reducing miles of woodlands to kindling. A few degrees drop in temperature, and a heavy winter rain becomes a tremendous ice storm that crushes the landscape and holds prisoner almost every living thing. Water caught in cracks and crevices expands as it freezes, sculpting and tumbling boulders from sandstone cliffs. In the aftermath, the smaller forces begin their measured transformation of the landscape; seed by seed, leaf by leaf, mole hill by anthill, season by season, one small step at a time — a transmutation more remarkable even than the sweeping fury of any storm.

The landscape is always a work in progress, sometimes changing within the next instant, but mostly it's an incremental process. Within the smallest elements lie the eternal powers that perpetually shape the land, and by no small measure, our own lives. This year, I hope for small things.





AN OLD stump melting back into the earth is something that the woodland hiker may step around, hardly giving notice to, but on closer investigation it is a bustling center of ambitious excavation. Termites and ants bore into it, while beetle grubs eat the bark. Mice and chipmunks nest inside or cache seeds and nuts in crevices. Various fungi grow on the soggy bark. There are indications that a black bear clawed away the loose bark and into the spongy wood to find insects. Shrews twitter along the roots in search of earthworms, which eat the shredded leaves piled against it. A stump is as much a prize to these creatures as the carcass of a dead deer is to the birds and mammals of a winter woods. Return years later, and the stump may be a moss covered pile of humus with jack-in-the-pulpits blooming, along with an oak tree sprout from an

overlooked acorn in a chipmunk's cache. A person could spend a month watching a stump and never witness all of nature's miniature industries at work.

One such stump, high on a ridge in a pinewoods, marks one of my bear hunting stands. From a distance the waist high stump resembles an ancient, crumbling castle. Its pale facade is charred black and orange from the sieges of fires and is chinked in places with moss. I stand in back of it, placing my pack and thermos on the punky core inside. One memorable day at the stump was perhaps the windiest, most bitterly cold day I've ever spent in the woods. The wind roared up through the pines from early morning to quitting time. Lots of wildlife came by that day, but the strangest came from within the stump itself. While opening my pack I looked down, and there, on the ends of the finest gossamer threads, were dozens of tiny spiders, blowing horizontally in the gale. Some had landed on my coat and were inching upwards, like soldiers on ropes, counter-attacking the giant who threatened the bastions of their decrepit fortress.

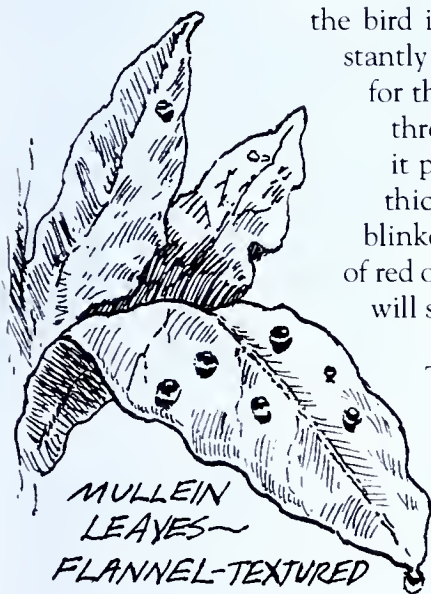
AT THE end of each season I review my birding notes and select an individual bird, or sometimes an entire species, as my favorite for that season. My selection is entirely subjective, with no set criteria. The second runner-up of this past autumn was a sharp-shinned hawk. This bird was not sailing overhead, but hunting on a mountaintop, darting from tree to tree. It flew nearby, then pulled up suddenly and perched in full view. It

looked all around with such intensity that its red eyes fairly glowed in the afternoon sun, the steel-gray feathers on its back a stunning blue in the monochromatic woods. Years ago, sharpies were known as "little blue darters," for obvious reasons. First runner-up was a trio of mockingbirds that for several days chased each other and every other bird in the neighborhood. When one mocker moved, they all moved — with white wing-spots flashing. Their incessant vocalizations overlapped and sounded like maniacal



gibberish. They tumbled after each other through bushes and over rooftops like crazed acrobats. Everything they did was carried to excess; the greedy way they gobbled up barberry fruits, frenzied water fights in the birdbath, the hilarious posing and posturing as they harassed one another, like an overstated, melodramatic composition from an Audubon painting, or possibly, a clip from a Marx Brothers movie.

The winner though, is the ruby-crowned kinglet. I had seen some golden-crowned kinglets earlier in the fall, but it is a particular ruby that gets the nod. Kinglets are tiny olive-colored birds, only four inches in length, about half of that tail. The male ruby has a reddish tuft on its crown that is barely discernible but is raised when the bird is excited. Kinglets are extremely animated birds, constantly flitting about, wings flicking, often a frustrating subject for the birder who often gives up when trying to watch them through binoculars. This kinglet was a special treat because it perched within arm's reach of where I was standing in a thicket and posed there quite nicely, flitting away when I blinked. That bit of olive superimposed against the backdrop of red oaks and the blue-violet of the mighty river gorge beyond will stay with me for a long time.



THE LATIN name for mountain laurel, our state flower, is *Kalmia latifolia*. Linnaeus named it in honor of Peter Kalm, a Finnish botanist who traveled in America before the Revolution. But it is another familiar plant that brings Kalm to mind. He was just south of Philadelphia one September day in 1748 and noticed that the dew was exceptionally heavy that morning in the fields. He set about examining the leaves on

many plants and noticed that there was dew on the underside of leaves as well as on top. He inspected leaves high up in trees and plants near the ground. He found both sides of leaves to be equally bedewed, except for those of the mullein which had less dew underneath than on top. I never really thought to look at dewdrops up close, until I learned what Kalm had done. A drop of dew acts like a panoramic mirror, but the image is upside down. Also, if you are in the field and need a magnifying glass, twist a small, one-eighth-inch loop in the middle of a long blade of grass, suspend a single drop of dew into the loop and you're in business.

I WOULD be remiss here, while on the subject of small things, to not mention one of our wild mice. The most intriguing and beautiful of them all are the meadow jumping mouse and its cousin, the woodland jumping mouse. A major distinction between them is that the meadow version has a dark-tipped tail, while the woodland's tail is tipped in white. Both are called kangaroo mice because of the way they bound.

On a sunny slope at the end of a weed field after a snowfall, I noted the fresh tracks of a kangaroo mouse. It was early November, and the tracks showed the mouse was moving between two dense clumps of grass. I sat down in the weeds to wait in hopes of seeing it. Sure enough, the meadow jumping mouse soon emerged from one clump of grass and hopped over to the other, repeating this several times, perhaps checking out which would serve as the best place to hibernate away the winter. What a contrast, this mouse and man: one, a small creature that proceeds through life by taking giant leaps, the other, a large creature who chooses to take many small ones.



A Winter Morning Grouse Hunt

By Michael T. Huff

BUZZ, buzz, buzz . . . my alarm clock sounded. 5:30. I stumbled out of bed and made my way to my hunting clothes hanging on the back of my chair. It seemed so bright outside. The weather forecast had called for this January morning to be clear and about 20 degrees. As I looked out my frosty window, I was quite surprised to discover that it had snowed three inches overnight.

After a leisurely breakfast and a couple cups of coffee (grouse hunter's fuel), I grabbed a handful of high brass 6s, my 12-gauge semi-auto and headed out the back door. I stood on the back porch and only then asked myself where I'd hunt. I had already decided to stay close to home, because I had errands to do later on, and wanted to maximize my time in the woods.

My options were to hunt directly behind the house, or across the road on the

facing mountain. Behind the house was a dense patch of woods with hemlocks, a few scattered hardwoods and a thick understory. The mountain across the road was fairly open immature oak and maple forest. I knew either spot would be good, because I had regularly flushed grouse in both places while hiking. I ended up heading for the dense forest behind the house.

The morning was beautiful. The sky, just beginning to brighten, was a beautiful winter blue. The air was cold and carried the sounds of a distant great horned owl saying his goodbyes to the night and of geese saying hello to the morning. Undisturbed, freshly fallen snow blanketed the forest in a white carpet as far as the eye could see. It was a perfect day to be out enjoying Penn's Woods. As I watched nature's version of a four-star movie, I realized my outing was already a success.

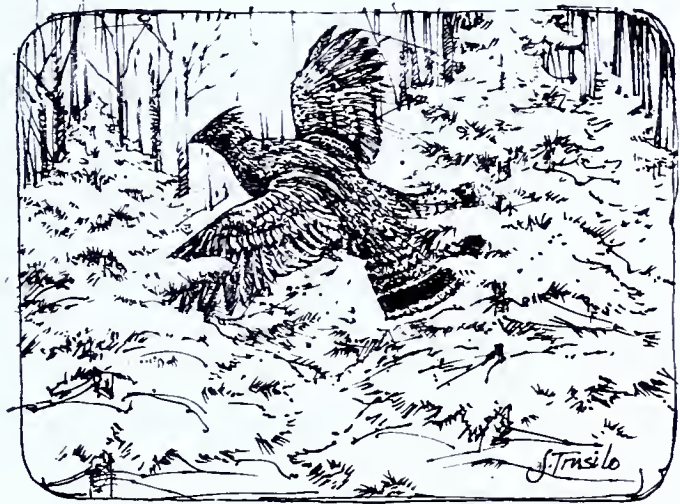
I started my hunt in a thick stand of hemlocks on the top of the mountain, a place where I had often flushed grouse while deer hunting. As I headed up the mountain, the soft snow made my footsteps almost silent. A movement about 40 yards ahead caused me to stop. I leaned against a tree and watched as a gray squirrel ran across deadfalls on its feeding rounds. It never seemed to notice my presence as I followed it with the bead on my shotgun. I was not interested in squirrels on this morning, though.

I noticed several squirrel tracks in the fresh snow and an occasional set of rabbit tracks. I was surprised there were no deer tracks; there had been a lot of deer here during buck season. It's amazing how deer seem to disappear from some areas during the hunting season and winter, only to be back when spring arrives.

The unmistakable sound of a grouse flushing out in front of me quickly brought

my attention back to hunting. I immediately scanned the sky, but could only hear the bird as it flew away, leaving a thick wall of hemlocks between us. About five seconds later, a second grouse flushed. I saw it for a split second as it flew between an opening in the trees, but I couldn't get a shot. I quickly remembered how challenging grouse hunting is.

I often find it more productive to flush a grouse, then walk to the area where it was headed. Because they are usually predictable and fly only 100 yards or so, it is often much easier to get a shot as the bird flushes the second time.



These two headed down the opposite side of the mountain into an area enrolled in the deer damage farm program. I figured there would be hunters around, so I decided not to pursue the grouse. I continued working to the end of the thick hemlock stand, and as I walked along, I thought about how unique and amazing the ruffed grouse is. Unlike quail and pheasants, grouse cannot be raised in captivity. The bird is wild in every sense of the word. Also, it has some interesting adaptations for snow, which it encounters over most of its range, from Alaska and north-

ern Canada, south to northern California, South Dakota, and the Carolinas. In winter, the bird grows bristles on its toes, which serve as snowshoes. Also, the grouse will dive under the snow, using it as insulation from the cold and to avoid predators.

I decided to hunt the mile back to the house by crisscrossing up and down the mountainside. This area is a mixture of mountain laurel, hemlock, white and red oaks, and an occasional sycamore tree. The slippery snow, thick understory and steep terrain, made for slow walking.

I hadn't gone far when two grouse exploded from under a hemlock no more than 25 yards in front of me. Before I could raise my gun they had already put the tree between us, so I walked to where I saw the birds head, crisscrossing back and forth. The 20-degree temperature now felt like a July day. I thought about how nice it would be to have a dog.

I had only about 400 yards remaining to hunt and wondered if the score would remain 0-4 in favor of the grouse. As it turned out, the score quickly changed to 0-5. Hearing a sound under a hemlock 10 yards away, I turned and spotted a grouse taking off from under the tree. I spun my 12-gauge in its direction, but couldn't get a shot.

I spotted the house in the distance and stopped for a moment to unload my gun and reflect on the morning hunt. Although I didn't have a grouse for the recipe I had looked up the night before in *Pennsylvania Game Cookbook*, the hunt had truly been a success. I flushed five grouse and saw a squirrel. I had some great exercise and was able to enjoy the beauty of the Pennsylvania woods in the winter. But most of all, I have a memory that will last for many years to come.

Maybe next year I will hunt on the mountain across the road. Maybe I'll bring a dog, too. Then again, maybe I won't change a thing. □

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FIELD NOTES



Read the Digest

DAUPHIN — After two years with the mandatory Migratory Bird Hunting License (HIP permit), I was surprised to encounter an individual who had no idea that the program existed. When I told him that he needed the HIP license to hunt, he became upset and blamed the issuing agent for not telling him that he needed it. Just as I can't read my wife's mind, sales clerks cannot read yours. Remember, it's your responsibility to have the correct licenses when you go afield.

— WCO GUY HANSEN, MIDDLETOWN

Fluorescent Orange Works

ALLEGHENY — While squirrel hunting, John Leonard of Dawson had his face, with his graying beard, leaning up against a tree, taking aim at a squirrel when he caught something coming at him out of the corner of his eye. As he ducked and moved, a sharp-shinned hawk buzzed right by his face. Apparently, the hawk had mistaken John's beard for a gray squirrel, but, fortunately must have seen John's orange cap at the last second and veered off. For those who know John, we all think he's a little "squirrely," anyhow.

— WCO JACK A. LUCAS, PITTSBURGH

Lasting Impression

LACKAWANNA — Last October I participated in a career shadowing program. My ride-along student was Charles Gifford from Valley View High School. During the day we toured a game lands, stocked pheasants and picked up roadkilled deer. Everything went well, the weather was great, and the freshly planted herbaceous opening for turkeys had a flock of birds feeding in it, just as I had planned.

— WCO DANIEL E. FIGURED, DUNMORE



Sure We'll Hear About it Anyway

BRADFORD — While trainee Steve Leiendecker was assigned to me during field training, my November *Game News* came in the mail. Steve quickly turned to the Field Note section, to see if he had one published. Although many of his classmates had entries, Steve's was not there. If he doesn't have one in this issue, I'll have to pressure him into writing one about himself and a certain trapped skunk.

— WCO WILLIAM A. BOWER, TROY

New Terminology

CRAWFORD — My 5-year-old granddaughter, Chelsea, and I were walking in the woods looking for deer. After our hike she asked if we could go "spot-looking" to see more deer after dark. Well, I've heard it called "spottin'" or "spotlighting," but never "spot-looking."

— WCO DAVID L. MYERS, LINESVILLE

One Good Deed Deserves Another

SCHUYLKILL — While turkey hunting Brian Wentzel came upon a jake hopelessly entangled in twine. He cut the twine and released the bird unharmed, then went back to hunting and bagged a hen turkey.

— WCO JOHN DENCHAK, GORDON

Brains or Brawn?

MONROE — WES Tim Conway, WCO Randy Shoup and I conducted a program at Pocono Mountain Middle School on problems associated with feeding wildlife. While WCO Shoup explained to the kids that deer often compete with each other at feeders, and that the larger, dominant deer kick the smaller ones to chase them away, he used WES Conway and me as examples. "Now if Dirk was a deer (I'm 6-10) and Tim was a deer (Tim is 5-6) who do you think would get the food?" Those who know how I like to eat would say I would definitely get the food, but Tim thinks he could outsmart me to get it. Bring on the food, Tim.

— WCO DIRK B. REMENSNYDER, SWIFTWATER

Vandals

SNYDER — Last October Trainee Matt Teehan and I responded to a nuisance bear call near Selinsgrove. It seems two bears had torn up a homeowner's swimming pool and lawn ornaments. We set a culvert trap and by morning had one of the bears. The other bruin must have been agitated that his buddy was caught, though, because the trap was covered with muddy paw prints, the license plate and wiring were ripped off the trap trailer, and the area around the house was trashed. We caught that second bear the next night. We felt certain that the bears were brothers that had been driven away by their mother, and we accelerated their dispersal by moving them 50 miles away.

— WCO STEVEN BERNARDI, PENNS CREEK

Who Says they Don't Like Water?

TIOGA — Trainee Rodney Bimber and I noticed what we thought were ducks swimming across Crooked Creek near SGL 37. We were pleasantly surprised, however, when an adult bobcat with two kittens emerged from the water.

— WCO RICHARD J. SHIRE,
MIDDLEBURY CENTER

What's Next?

LEHIGH — During the past year I've seen otters, bears, ospreys, bald eagles, and even a pair of common loons here. The loons took up residence at Leaser Lake for the entire summer. It's amazing how well wildlife adapts to urbanization.

— WCO MICHAEL BEAHM, FOGELSVILLE



It Figures

Deputy Steve Baxter and I were patrolling in the Brookston area on the opening day of the fall turkey season when we stopped to check some hunters near a dead-end forestry road. The hunters were enjoying the great weather, but disappointed over not seeing any turkeys. Our conversation was soon interrupted, though, by the commotion caused by a large turkey flying over our heads.

— WES RICHARD T. CRAMER, TIONESTA

Give it a Try

TRAINING SCHOOL — While on field training assignment in the Northwest Region, I got to experience waterfowl hunting, a type of hunting I was pretty unfamiliar with. As I stood by on several mornings, I was amazed at the various methods used to attract these ducks and geese. From the calls, decoy spreads, and even a few hunters using black flags, I thought this is a type of hunting we all should experience. It sparked a new interest in me, maybe it can for you, too.

— TRAINEE TOM SWIECH, HARRISBURG

Far and Wide

TRAINING SCHOOL — WCO Steffan and I checked hunters in Cumberland County on the small game season opener, and I was amazed at the number of nonresident hunters. Most were pleased with the hunting opportunities here, and I even checked one hunter from Alaska who had high hopes of bagging a pheasant.

— TRAINEE JERROLD W. CZECH JR.,
HARRISBURG

No Bait, Either

LANCASTER — Last summer Deputy Bill Grooms and I assisted the PA Fish and Boat Commission by patrolling at night on the Susquehanna River near Columbia. Around midnight we had come to a rocky section, and had to slowly maneuver the boat through it. Seeing was difficult, so I moved to the front of the boat to guide Bill as he steered. I was already nervous about our situation when suddenly a bass leaped out of the water and landed in my lap. The fish easily cleared two feet from the water into the boat, but Deputy Grooms claims I easily beat that when I jumped.

— WCO THOMAS P. GROHOL, ELIZABETHTOWN

Many Thanks

CLARION — I'd like to thank the folks who got involved this past season and reported game law violations to me. Several involved littering, and one was a deer-poaching incident. It's nice to know that we have lots of extra eyes and ears out there.

— WCO ALAN C. SCOTT, NEW BETHLEHEM

Is it that Noticeable?

TRAINING SCHOOL — WCO Mark Allegro and I were patrolling Geneva Marsh in Crawford County when we noticed huge flocks of blackbirds flying north when they should have been heading south for the fall. Wearing a sheepish grin WCO Allegro said, I guess they're not the only ones that seem totally confused."

— TRAINEE RANDY W. PILARCIK, HARRISBURG

Stacked to the Ceiling

TRAINING SCHOOL — After my first week of field assignment I was amazed by the huge volume of paperwork a WCO must complete. Instead of issuing computers, perhaps the agency should consider assigning us secretaries.

— TRAINEE FRANK LEICHTENBERGER,
HARRISBURG

Never Live it Down

TRAINING SCHOOL — While I was on field assignment, a man was asking me a question when he noticed my name tag and said, "Hey, you're the one who tried to swim under the canoe wearing your PFD." I guess Field Notes are popular with *Game News* readers.

— TRAINEE BARRY A. LEONARD, HARRISBURG



John Deere 4020

ERIE — Gordon Pietrowski shot a buck on October 31. After his well placed shot, Gordon returned home to wait an hour before tracking his deer. When he returned to the area and started tracking, he noticed his neighbor using a brush hogger in a nearby field. Before Gordon could reach the field he heard a loud noise and the equipment stopped. The neighbor had run over the dead deer in the thick brush. The deer was field-dressed, skinned and ground all at the same time. I wonder what box Gordon checked on his report card for method of taking animal?

— WCO MICHAEL D. WOJTECKI, MCKEAN

That Explains It

When the WCO's send their Field Notes to the region office, I have to "tidy" them up before sending them on to the *Game News* staff in Harrisburg. I can always tell when the moon is full near the end of the month.

— IES JACK WEAVER, SHAVERTOWN

Realistic

LYCOMING — After doing a presentation, Deputy Scott Letterman was returning a mounted coyote to the Northcentral Region office when he decided to stop at the drive-through window of his bank to cash a check. The bank teller was grinning, and after Scott received his envelope he could see why: The envelope contained two dog biscuits.

— WCO THOMAS SMITH, MONTOURSVILLE

Experienced a First

SOMERSET — While driving through a game lands here I saw a female bobcat lying in a grassy area, nursing a kit. Both mother and young jumped up and were in the brush within seconds of my sighting them.

— WCO DANIEL W. JENKINS, BERLIN

Who's Watching Who?

TRAINING SCHOOL — While on field assignment with WCO Chip Brunst I met retired LMO Ned Weston. Ned's house overlooks a section of SGL 95 where a pair of bald eagles have a nest. I don't know who benefits the most, Ned, who watches these majestic birds, or the eagles that have Ned as an overseer.

— TRAINEE RODNEY L. BURNS, HARRISBURG

Jeff Gordon We're Not

TRAINING SCHOOL — Part of our Perceptual Driving course was behind-the-wheel experience on a challenging road course. I think it's safe to say that none of the class will be on the NASCAR circuit anytime soon.

— TRAINEE DANIEL T. SITLER, HARRISBURG



What About the Skunk?

TRAINING SCHOOL — On my first day of field assignment a man reported seeing a mountain lion, and later that evening I got a call about a woodchuck attacking customers at a local restaurant. If my first day is any indication, the remainder of my training ought to be real interesting.

— TRAINEE STEPHEN A. LEIENDECKER, HARRISBURG

Not a Good Idea

TRAINING SCHOOL — While helping WCO Terry Wills with an HTE class, I was explaining that an adult must accompany a junior hunter and be close enough to instruct him or her in a normal tone of voice. One student asked, "If my parents don't want to go with me could I take a cellular phone in their place?"

— TRAINEE R. E. BIMBER, HARRISBURG

Nice Try

WYOMING — While patrolling, I told Trainee Steve Leiendecker to pull ahead of a horse-mounted fox hunter, so as not to spook his horse, and signal him to stop. I wanted to tell the huntsman we had just seen a riderless horse galloping along a busy highway. He thanked us and headed in that direction, after which, Steve, always chomping at the bit to check-off another category in his daily logbook, asked if we could count the incident as a vehicle stop.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Conservation News

"Effective management of Arctic snow goose populations, for hunting or for overall aesthetic enjoyment and appreciation as an integral part of our outdoors, requires indepth understanding about population densities, distribution, productivity, human impact and habitat."

— Arctic Goose Joint Venture, North American Waterfowl Management Plan.

Snow goose workshop

TO INCREASE our understanding of snow geese, the Game Commission and the Susquehanna River Waterfowler's Association are sponsoring a one-day workshop at the Middle Creek Wildlife Management Area on Saturday, Jan. 23, from 9 a.m. to 4 p.m.

One of the first spin-offs of the Governor's Symposium on North America's Hunting Heritage, the workshop is designed for hunters, birders and all others interested in the issues and conflicts surrounding this bird. It will feature speakers spanning the entire spectrum of snow geese hunting and management.

The tentative slate of speakers includes selected staff from the U. S. Fish & Wildlife Service involved with research on snow geese and federal law enforcement. The Game Commission will feature noted waterfowl biologist John Dunn, Middle Creek WMA manager Jim Binder and Bureau of Law Enforcement assistant director John Shutter. The Pennsylvania Farm Bureau will be among those who will represent landowners upon whose crops the wintering snow geese flocks feed. To reinforce concerns snow goose populations are having on wildlife habitat both here and on their nest-

ing grounds will be Dr. Frank Gill and Cindy Dunn from the National Audubon Society.

A focal point of the workshop will be development of acceptable hunting techniques that work and yet retain all legal and ethical fair chase standards and be accepted by the nonhunting publics.

Experienced snow goose hunters will be part of the agenda, and they will cover some of the imaginative and successful techniques sportsmen can employ. Decoy spread technology and calling demonstrations are also scheduled. Attendees will have the opportunity to interact with speakers.

This workshop will also be a special opportunity for manufacturers, waterfowl conservation and sportsmen's groups and others to exhibit their products and services.

The program is free and extensive parking is available. Food service will be on site. For questions or more information contact the Game Commission's Southeast Region Office at 610-926-3136.

If snow geese are part of your world, even if only for the short time they visit Pennsylvania, plan to attend this workshop. — John Plowman

Houk memorial dedicated

THE CONSERVATION Officers of Pennsylvania Association (COPA) dedicated a new memorial headstone for Seeley Houk, the first full-time Pennsylvania conservation officer killed in the line of duty.

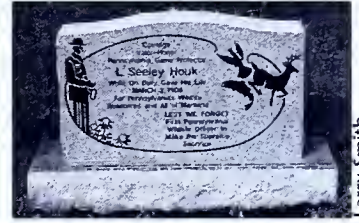
The ceremony, held last September at the Lawrence County grave site of Houk, featured a welcome by Regis Senko, Northwest Region Information & Education Supervisor; an historical account of the Seeley Houk story by Jack Weaver, Northeast Region IES; and remarks by COPA president Bernie Schnader. Bob Gilford represented the commissioners, and Deputy Executive Director Mike Schmit represented the Game Commission Executive Office.

The 107th Field Artillery Unit of the Pennsylvania Army National Guard participated in the ceremony, and Chaplain Douglas Etter spoke on "Duty"

and led the group in prayer.

Approximately 60 people, including many uniformed officers from the Game Commission and the Fish and Boat Commission, attended the ceremony.

Houk was brutally murdered on March 2, 1906, by Rocco Racca. Following a lengthy investigation in which it was discovered Racca was associated with an underworld group known as the Black Hand, he was hanged on October 26, 1909.



Larry Smith

THE CONSERVATION Officers of Pennsylvania recently dedicated a new headstone memorial for Seeley Houk, the first wildlife conservation officer killed in the line of duty.



Larry Smith

Late winter goose season on tap

WATERFOWLERS get another shot at resident Canada geese this month, when the late winter goose season opens on January 15. Most of the state is open. Butler, Crawford, Erie and Mercer counties in the northwest are closed, as are all or parts of 15 counties in the southeast corner of the state.

Hunters may take up to five Canada geese per day; the possession limit is 10. Hunters must use nontoxic shot no larger than T size. Waterfowlers 16 years of age and older must have a valid Migratory Bird Hunting and Conservation Stamp (federal "duck stamp") signed in ink across the face.

The late Canada goose season has become increasingly popular in recent

years, since it was first offered in 1993. The season offers an outstanding opportunity to hunt these wary birds, and it's also a way of controlling a burgeoning population of resident geese in Pennsylvania.

The northwest and southeast corners of the state are closed during this season because migrant Canada geese winter in these areas. The Canadian populations of Canada geese, which are migrants here, have declined dramatically, so every effort to protect and restore them is being made.

Hunters are also reminded that ruffed grouse may be hunted through January 23, and that the squirrel and rabbit seasons are open through February 13.

Hoffman retires

LANTZ HOFFMAN, Director of the agency's Bureau of Information and Education, retired on November 13, 1998. Serving as a deputy wildlife conservation officer for 34 years, Hoffman began working for the Game Commission full time in 1979, when he became the agency's first public relations officer and legislative liaison. In May 1981



he became head of the Information and Education Division — which has since become a bureau.

Among the many highlights of his career, Hoffman early on recognized the vital need to teach and show youngsters what wildlife management and the Pennsylvania Game Commission are all about.

During his tenure, Hunter-Trapper Education was greatly expanded; Project WILD, Becoming an Outdoors-Woman and several other programs were begun or enhanced. And,

perhaps most significant, Wildlife Education Supervisor/Specialist positions were established, one in each of the agency's six regions. The officers in these positions work almost exclusively with teachers and other educators interested in teaching students about wildlife.

During his career, Hoffman was named Communicator of the Year by the International Association of Fish and Wildlife Agencies in 1990, outstanding Game Commission employee in 1995, and the Northeast Fish and Wildlife Agencies' Communicator of the Year in 1997.

In announcing his retirement, Hoffman said, "Much has been accomplished. Yet, much more must be done, and done quickly, as we race toward the next century in a growing urbanized society far less inclined to support hunting than at any time in the commonwealth's history." No better words could summarize Hoffman's career with the Pennsylvania Game Commission.

Commission to meet

THE GAME Commission has scheduled a series of public meetings, January 10 through 12, at agency headquarters, located at 2001 Elmerton Avenue in Harrisburg.

On Sunday, January 10, invited representatives of sportsmen's and conservation organizations, and other interested groups, will present to the Commission their recommendations for hunting and furtaking seasons and bag limits. The meeting starts at 1 p.m.

On Monday, January 11, during a

workshop session, public comment and recommendations will also be heard, along with staff reports on various agency programs.

On Tuesday, January 12, the Commission will propose hunting and trapping seasons and bag limits for 1999-2000. Meetings on both Monday and Tuesday start at 8:30 a.m.

Persons with disabilities wishing to attend these meetings who require special accommodations, should call the agency at 717-787-7836.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

NWTF featured on TNN

THE NATIONAL Wild Turkey Federation has a new program airing on TNN. Called "Turkey Call," the program will feature turkey hunting, NWTF conservation efforts and the organization's grassroots members across the country.

In addition to covering ways to hunt this elusive game bird, the show will also feature segments of the NWTF's JAKES youth hunts, which teach hunting ethics and the traditions involved in turkey hunting.

Introducing the new show during his banquet address at the fall meeting of the Pennsylvania Outdoor Writers Association, NWTF Executive Vice President Rob Keck said, "Our new show focuses on the people who revere this great American game bird, and it will help the NWTF promote the conservation of the wild turkey and the preservation of the turkey hunting tradition."

The 30-minute show premieres on Saturday, January 2, at 9 a.m.

Scouts work for wildlife

BOY SCOUT TROOP 242, comprised of students enrolled at Sleighton School (a school for court appointed delinquent and dependent youth) in Delaware County kept busy with wildlife related projects last spring.

With guidance from WCO Dan Figured and local farmer Rich Schlasberg, the young men constructed and erected bluebird houses and planted a 2-acre plot on school property in sunflower, millet and sorghum to benefit wildlife. The Scouts learned firsthand how crucial habitat is for wildlife. The group plans to raise pheasants in the future.



BOY SCOUT TROOP 242 gathers in front of their wildlife food plot. WCO Dan Figured and teaching assistant Pete Lasavage (back of group with hand on pole) supervised the project.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southcentral — 814-643-1831

Southwest — 724-238-9523

Northeast — 717-675-1143

Northcentral — 717-398-4744

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

License increase passed

A BILL increasing license fees was passed on November 24, 1998, right at press time for this issue, and awaiting the governor's signature. Highlights of the bill include raising the cost of an adult resident hunting license to \$20. Archery and bear licenses went to \$16 each, and a muzzleloader stamp to \$11. Nonresident license fee went from \$80.75 to \$101. For nonresidents, an archery license will cost \$26; a bear license, \$36; and a muzzleloader license, \$21. All fees include a \$1 license issuing agent

fee, which was raised from 75 cents.

Four years in the making, the license increase legislation will give the agency around \$11 million more in annual revenues. This is the first increase in license fees since 1985.

The legislation also included changes to law enforcement practices. Deputies will no longer be allowed to issue citations, and game law violators will no longer have the option of settling on a "Field Acknowledgement of Guilt." Watch next month's issue for further details.

PGC Retirees



Alfred Mack, Jr.
Game Land
Maintenance Worker
Southwest Region
Vintondale



Jane M. Sikorskis
Clerical Supervisor
Northcentral Region
Lock Haven



Carol A. Shumaker
Executive Secretary
Executive Office,
Harrisburg
Duncannon



Elizabeth Williams
Clerk, Game News
Bur. of I & E
Harrisburg
Harrisburg



Guy W. Waldman, WCO
McKean County
Northcentral Region
Lewis Run

ALSO RETIRING were Craig Peleksy, Game Lands Maintenance Supervisor, Southwest Region, Ligonier; Betty J. Estes, Wildlife Maintenance Propagator, Western Game Farm, Centerville; Richard Masisak, Game Land Maintenance Worker, Northcentral Region, Houtzdale; Mark Crowder, Wildlife Conservation Officer, Fulton County, Southcentral Region, McConnellsburg; Robert E. Koch, Clerk, Bureau of Administrative Services, License Division, Harrisburg Headquarters, Harrisburg; Suzanne Phillips, Clerk Steno, Bureau of Wildlife Management, Harrisburg Headquarters, Carlisle; George Landock, Game Land Maintenance Worker, Southwest Region, Washington; Sara M. Chelap, Clerk Typist, Bureau of Law Enforcement, Harrisburg Headquarters, Camp Hill; Homer H. Hart, Environmental Education Specialist, Northwest Region, Cochrannton; and Lantz Hoffman, Director, Bureau of Information and Education, Harrisburg Headquarters, Harrisburg.

Another View

By Linda Steiner

We'd all like to hunt deer in places where the only sounds are the chirping birds and a gurgling brook, but deer have adapted to humans, and the noises associated with us. To be successful, you just might have to forsake . . .

A Quiet Place

MORE THAN 100,000 holes have been drilled in Venango County since oil and gas were discovered here. And they're not done yet.

I carried my climbing treestand to the top of a hill during the archery season, got buckled and belted in and went about 15 feet up the tree. I hoisted my bow and arrows up with my nylon line, and settled on the seat to watch over the fresh buck scrape. This may sound like the makings of a peaceful afternoon in the woods, with the loudest noise being chipmunks scuffling leaves and scolding each other. Or you might think I was in for stillness broken only by the soft footsteps of a buck. But from that treestand I could hear the constant drone of a drilling rig. It was almost, but luckily not quite, loud enough to drown out all the other woods sounds.

If you've never heard a gas well being drilled, it's a continuous, heavy equipment roar, punctuated with the hiss of air, metallic clunking of pipe, and the sound of big bulldozers and trucks. The noise is probably welcome if you're the one who owns the new well, but for the rest of us the ear assault is thankfully short-lived. The drilling seems to go on around the clock, but it's done in a week. Then the site is leveled



Linda Steiner

IT'S SOMETIMES difficult for hunters to realize that many wildlife species do quite well in surroundings that are not scenic wilderness areas.

and seeded. A tank and pipes are all that remain.

I don't know much about gas well drilling, other than that afternoon, in the cool, damp air, the activity and its audio emissions seemed to be in my back pocket. The

sound wasn't loud in the valley below, but I was on the hill and level with it. I tried to remember where I'd seen a drilling rig set up — they look like a derrick, higher than the treetops, and are lighted at night — but the nearest I could think of was about two miles away. The drilling sounded so close and loud, but it was the terrain that made it seem so.

Although the serenity of the woods that I'd looked forward to wasn't there, the deer were. No, I didn't see any that evening, despite the sign at the scrape, but a friend who was hunting near me saw eight. They fed placidly on acorns but never came close enough for a shot. Then they moseyed back toward the drilling. The deer didn't show any awareness or nervous concern about the onslaught of sound. But then, they must hear lots of strange noises caused by people. I'll bet they largely ignore the racket. I know they ignored the antlers I was rattling and my growls on the grunt tube, trying to entice a buck to the scrape. I even timed my noise making to the pauses in the drilling commotion, when the deer would most likely hear me.

It's been a hard lesson for me to learn, that a lot of wildlife does quite well in surroundings that are not my ideal of back country, quiet wildlands. It seems to me that hunting should be done where the loudest noise is the wind through the pines, and the only machinery that operates is the silent natural process of mossy logs being converted to soil. I've spent a lot of time looking for this place, this quiet place, and have hiked past the best hunting, because game was living contentedly near the road and the hub-bub of human activity I was running from.

I attended a seminar recently about deer hunting and management, where one speaker talked about how his bowhunting group hunts properties in the crowded southeastern portion of the state. They ply their sport literally in peoples' backyards. "It's a whole different kind of hunting than you may be used to," said the speaker. "Here

you know deer are coming toward your stand because the dogs start to bark and the motion detector light comes on." This isn't the way-back-in, hushed hunting experience I dream of, but I know the deer numbers where the speaker lives are far higher than the big woods retreats where my romantic sensibilities tell me I should go.

I've come to realize that in Pennsylvania today, many of us may have good hunting out our back door, but that door doesn't open on a tranquil wilderness. Woods are beyond our yard and we can still hear deer steps in the leaves, but the background noises include motorcycles gunning down the highway and the neighbor's dogs barking like banshees at feeding time. We might even hear the neighbor's kids playing, yelling and laughing. That used to unnerve me when I was on stand with a gun or bow. I had to keep reminding myself I was well out of the safety zone, and the sound of the children was carrying far.

The other half of the statement that some wildlife thrives close to people — like deer that destroy gardens — is that these animals have not only taken advantage of manmade food and cover, but they've become accustomed to the scents and sounds of humans. We're a noisy and smelly bunch to them, I'll bet, but they tolerate that and get around us and use us. I have to give them credit for a tolerance I don't always have.

I have become more patient of noise intrusions in the woods than I used to be (I didn't let the well drilling chase me), but there are times when the din is an affront and an interference to the hunt. When I'm traveling the interstate highways across the state, I look out at the scenery and think how peaceful the woods must be. But there's a flip side. I've been in those woods, or roadside woods like them, trying to hear deer walking or turkeys yelping. Using your ears to help you hunt there is impossible. The long stretch of highway roars at you, especially if you're above and on a facing

hillside. On one game lands I gave up spring gobbler hunting, even though the birds were there. I simply could not hear them over the I-80 noise, and for that type of hunting, hearing is everything.

Yet one day last October, I voluntarily

of the traffic.

But now and then you have to get away from it all — all the human noise, that is. During the early bow season my friends and I hiked some miles into the Hickory Creek Wilderness Area in the Allegheny National Forest. For no

other reason than we had antlerless permits for Warren County and wanted to do, and see, something different. I was a little disappointed in the habitat — mostly hemlocks, maple, beech and dried meadow grasses. There was some deer sign, but not a lot for the distance we walked.

But there was quiet. I heard only the little gurgling run I followed up the valley, the crunch of my own boots on the dry leaves, and the breath of

air sighing in the yellow grasses. When I sat for a while along a deer trail, a raven flew over, croaking and turning its bright eye to peer at the intruder. The visual traces of the old railroad grade, the remnants of fields and fading apple trees were the only signs that people had once been active here. In the stillness I listened for what I was afraid I would hear — chain saws, car engines and domestic canines. There were none.

We stayed back in until quitting time and didn't get out of the wilderness area until after dark. The last of the walk, the rising full moon lit the way and a great horned owl hooted as if to steer us in the right direction. Then our Jeep engine revved and broke the quiet, another car came down the dirt road, and somewhere towards home, a dog barked. □

Bob D'Angelo



MANY TIMES the best place to spot wildlife might not be in the middle of some wilderness area; it might literally be in your own backyard. Some animals have not only taken advantage of manmade food and cover, but they've become accustomed to the scents and sounds of humans.

chose an archery stand that was on a mountain point above a busy road. I'd walked far out the game lands path the other way, and found little deer sign and few acorns. But I remembered seeing a small clearcut on the end of the hill near the parking lot, so I turned around and headed toward the sound of the 18-wheelers. I hadn't seen a deer that afternoon until I popped out on the point. Then four does flagged and bounded over the lip. I followed and posted for the last hour where a trail crossed between thickets. The deer didn't show again, but on the way down the mountain at quitting time, listening to tires whine on the asphalt, I found three fresh buck scrapes, plus lots of rubs, beds and droppings. Boy, would I like to come back for buck and doe seasons, I thought. The deer sure were here, and for that I could put up with the drone

The Naturalist's Eye

By Marcia Bonta

There's something enchanting about the melancholy hooting of an owl floating across a snowy landscape on a clear, cold winter night.

Owls of Winter

JANUARY is great horned owl month on our mountain. Not only are their hoots the quintessential signature of long, silent, moonlit winter nights, they also are more visible in the daytime. During the rest of the year I may have an occasional glimpse of one as it flies from a roost, but my best sightings have occurred in January, most notably January 18, 1993, and January 19, 1998. In both instances the mobbing calls of crows alerted me to the owls' silent, motionless presence.

The 1993 sighting occurred on a windy, 20-degree, sunny morning. I tracked scolding crows to Margaret's Woods, but I could not see what they were fussing over. Still they persisted, so I finally walked toward them up the Steiner/Scott Trail (a recent logging road that leads to the top of Sapsucker Ridge).

Halfway along the trail I spotted a large, beige-colored blob on the branch of a tree swathed in grapevines. To my delight that "blob" was a great horned owl bathed in sunlight and not inclined to fly. I sat below it, my back against a tree, and watched as a pair of black-capped chickadees flew in close to scold the owl. Then a tufted titmouse joined the chickadees as they

called a couple feet from the owl's head. It blinked its eyes open to look and the birds flew off, so it closed its eyes again.

After a few moments, it again opened its eyes and slowly turned its head to the side. The eye toward me watched as I stood up. After I took a couple of steps, it flew off.

I was amazed at how perfectly it had blended into the tree branch and grapevines. Without my binoculars I never would have distinguished the owl with its perfect camouflage. I thanked the crows, which, for once, had had something to crow about.

According to biologist Bernd Heinrich, who studied mobbing behavior while raising an orphaned great horned owl, birds that are permanent residents of an area, such as the tufted titmouse and chickadees I noticed, use mobbing to encourage owls to move on. He further hypothesizes that "since crows have conspicuous roosts to which they return each night, the move on hypothesis should apply especially strongly to them. And, indeed, the vigor of the crows' mobbing in winter is surpassed by few other birds, even in spring." Furthermore, after analyzing owl pellets in his

woods, he discovered that crows were the primary prey of great horned owls there.

Whether or not our great horned owls prefer crows, mobbing crows again “showed” me a couple of owls last January on an inclement morning. A light snow fell as I walked Greenbrier and Ten Springs trails through a forest that had been clearcut seven winters ago. But as I neared the end of Ten Springs Trail, five crows cawed loudly in the uncut forest ahead. I sat down in the heavily wooded hollow and, looking uphill, I quickly spotted the shape of a great horned owl sitting on the end of a tree branch. It looked as if it were unbalanced, but the branch had a projection against which the owl was braced.

I sat and watched for 15 minutes as two crows remained nearby, occasionally emitting low noises of approbation in their throats. Then I spotted a second, slightly larger owl sitting tightly against the tree trunk. No doubt it was a pair—the larger female against the trunk, the smaller male out on the limb. I’d never seen a pair before, so I continued watching them until I was too stiff and cold to remain any longer. As I stood up, stretched my cramped legs, and continued my walk, the male, which had had its head turned away from me the entire time, finally looked down at me. The female never moved. With both owls, it had been their ear tufts that had made it possible for me to first pick them out despite their frozen stances and excellent camouflage.

Heinrich also speculates on the use of ear tufts. Fifty of the world’s 131 species of owls have them, yet no one is sure what function they serve, if any. In the case of Heinrich’s captive great horned owl, *Bubo*, he says that “he has a fondness for perching on broken-off tree trunks, where he quite effectively impersonates the top of



the stump.” Heinrich wonders if the reasons for ear tufts could be that they mimic the ears of mammals, which helps them in their threat displays, serve as short range species recognition marks, and/or provide added camouflage. Perhaps ear tufts helped to camouflage *Bubo*, but not the wild owls I’ve noticed.

I assumed that the pair I saw was the same couple that hooted throughout the winter near our home, because a breeding pair needs a square mile of good territory, which is exactly what we own. On February 13 and 14 a pair called from trees on Sapsucker Ridge in early evening, and we could easily see them with our binoculars. By February 18 they had moved to the small woods above our garage and hooted most evenings and early mornings until March 16. The female hoots are shorter and higher pitched than those of the male. Researcher John T. Emlen had sharp enough ears to detect grunting noises the male makes before he hoots and in between hooting, to stimulate the female to hoot. In turn, the female hooting stimulates the male to continue hooting. All of this is part of the annual courtship ritual between birds that mate for life.

Solitary hooting by males is done to

advertise and defend their territories, which they hold on to throughout the year. Most great horned owls remain in the same area where they hatched, unless food is scarce. Then the young may move on, as far as 837 miles in one case. But established pairs may not breed if food is scarce; evidently faithfulness to their territory is stronger than the urge to breed.

When there is enough food, courtship takes place mostly in early January and February evenings, and includes calling, displaying, mate feeding and allo-preening. First the male approaches the female by hooting and landing on perches close to her. She may answer him if she is interested. He then performs such displays as fluffing his body feathers, partly spreading his wings and bowing, walking and hopping on the ground, and/or throwing his head back and repeatedly snapping his bill. If she doesn't fluff her feathers or snap her bill at him, both signals that she is not interested, he sits on the same perch with her, gradually sidling closer, until they preen each other by pecking at the feathers around their mate's bill and/or head and sometimes emitting a variety of barks, screams, whistles and hoots. Then both hop and bow, and occasionally the male brings in food for them before they mate. After mating, the pair often roosts together during the day, like the pair I observed last January.

Great horned owls never build their own nests. Instead, they occupy old nests of red-tailed hawks, crows, ravens, herons or squirrels. Last winter I examined dozens of old squirrel nests in search of nesting

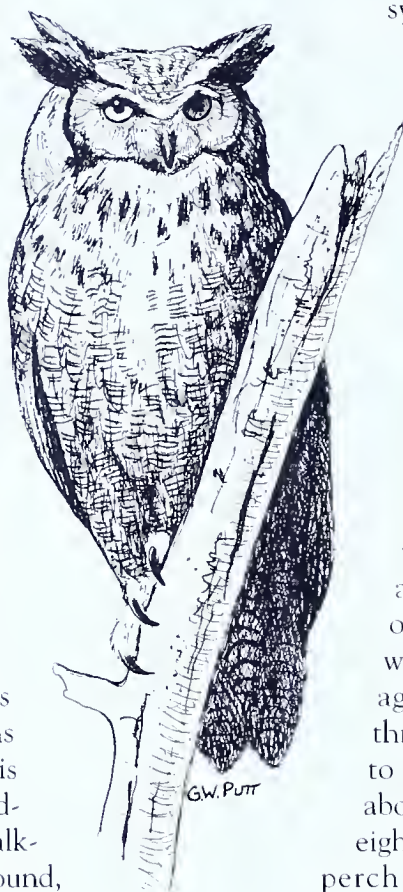
great horned owls but never found any. Because they occupy their nests and lay their one to four white eggs from mid-February to early March in Pennsylvania, deserted nests are

easy for the owls to pre-empt. The female, occasionally relieved by the male, incubates the eggs for 28 to 30 days, but once the eggs hatch, the female keeps the young warm while the male provides food. The young hatch over several days, in the order in which the eggs were laid. If food is abundant, all of them survive and thrive. If it isn't, the largest owlet is fed first and competition is fierce, often the youngest (and weakest) die. At two weeks of age their eyes are open; at three, brooding stops; at four to five weeks they can move about the nest; and at six to eight weeks they leave the nest,

perching on nearby branches where their parents continue to feed them. When they are 9 to 10 weeks old, they attempt to fly, and gradually, after 10 more weeks, they have learned to fly and have been taught by their parents to hunt well enough to disperse, although half of all young do not survive their first year.

Humans have been their most implacable enemies. Because great horned owls eat popular game species such as ruffed grouse, cottontails and ring-necked pheasants, bounties were in place on them from 1937 to 1941 and from 1944 to 1966. The Federal Migratory Bird Treaty Act of 1972 forbade the taking of all raptors, including great horned owls, and since then their numbers have increased.

Opportunistic feeders, great horned owls tend to eat whatever is available, including rabbits, foxes, porcupines, skunks,



other owls, hawks, crows, feral cats, mice and rats. They fish in water up to their stomachs for fish, turtles, crayfish and frogs. Heinrich's captive *Bubo* distinguished between wood frogs, which it relished, and bullfrogs, which it disliked.

One researcher in Wisconsin watched as a great horned owl perched on a tamarack tree, bobbed its head, flew off into a gradual climb, flipped back in midair and grabbed large, chunky beetles, which it carried back to its perch to eat. Another owl was seen ripping a muskrat from a trap, and still another tried to grab a raccoon from a hunter's shoulder. *Bubo* dined happily on fresh kills made by Heinrich's cat — mice, voles, shrews and songbirds, and on fresh roadkills collected by Heinrich. Heinrich also fed him red squirrels that he had shot.

Years ago, when we raised Muscovy ducks, we arrived home after sunset and watched a great horned owl trying to fly off with our alpha male Muscovy named Big John. Big John flapped valiantly as the owl aborted a couple liftoffs before giving up. In the end, though, it was a raccoon that wiped out all 27 of our ducks as they roosted in the barn.

A food study done in Pennsylvania from 1965 until 1986 by biologists Wink, Senner

and Goodrich analyzed owl pellets from 17 counties and found that although cottontail rabbits were a favorite prey item of great horned owls (15 percent), ruffed grouse prey ranged from nine percent in northwestern Pennsylvania to four percent in southeast Pennsylvania, and pheasants a mere three percent. The overwhelming favorite prey, however, were Norway rats (24 percent). But if the diet was based on the weight of the prey, opossums constituted 33 percent, rabbits 28 percent and Norway rats 12 percent.

The rats are an indication of how popular farm habitat is with great horned owls. According to a study carried out by Yahner and Morrell from 1986 to 1989 in southcentral Pennsylvania, great horned owls hunted most extensively in agricultural areas and adjoining woodlands. In fact, the more fragmented the landscape, the better the opportunities for great horned owls.

Because they will eat almost anything and live almost anywhere — from Arctic Canada and Alaska to the southern tip of South America — great horned owls will survive and thrive long after specialists have gone extinct. That's good news for those of us who define our winter nights by listening to their hooting.

Books in Brief

(Not available from the Game Commission.)

Summer at Little Lava: A Season at the Edge of the World, by Charles Fergus, North Point Press, 19 Union Square West, NYC 10003, 289 pp, \$24. This started out to be a book about Iceland and spending a summer at an abandoned isolated farm on the country's western shore. But it turned out to be much more. About nine months before he, his wife and their son were to leave for their Icelandic summer sojourn, Chuck found his mother savagely murdered in her State College home. *Summer at Little Lava*, therefore, turned out to be more than a fascinating account of Iceland's history, culture, people and — of course, for Fergus — wildlife. It's also a heartfelt personal account of how Chuck dealt with the anguish, anger and grief surrounding his tragic loss.

Fan's of Fergus's "Thornapples" column he wrote for Game News from 1978 through 1992, will especially enjoy *Summer at Little Lava* as it brings them up to date with Chuck, although at a most distressing time of his life.

Straight from the Bowstring

By John Kasun

Like a kid in a toy store, it's understandable how an archery enthusiast could become dazzled by the wide array of gadgets on the market, but when it comes to choosing equipment it's often best to . . .

Keep it Simple

THERE IS GOOD news and bad news for today's archers. The good news is that the archer has a tremendous amount of equipment from which to choose. But this, unfortunately, is also the bad news. High-tech materials combined with innovative designs and aggressive marketing strategies have buried today's archer under a mountain of new equipment, each promising higher scores and bigger bucks.

A close review shows archery products range from the simple, yet efficient, stick bow or recurve to compound models made with space age materials and technology. The fact is that bowhunting can be enjoyed with either of these styles of equipment.

Today, more bowhunters are returning to the challenge of traditional equipment. However, the majority of bowhunters still opt for the modern compound and the associated high-tech equipment. Although the choice between traditional and modern equipment is a personal one, the goal for either bowhunter must be the same: Keep It Simple. Bowhunting is a close range venture, so the hunter must pay attention to many details. The less details there are to worry about, the greater the chance for success. The modern bowhunter must be careful not to increase the amount of things that could go wrong by adding equipment or equipment that is not necessary. Also, be careful not to buy the most expensive items just because they should be the best. Here's some advice to better understand the Keep It Simple logic.

Bows

Regardless of cost or

THE ANNUAL Bowhunting Trade Show has anything and everything a bowhunter could possibly want. How much is actually necessary, though?

John Eicher



manufacturer's hype, today's bows are of high quality in both material and design. While a good hunting bow can be purchased for \$150 to \$300, split limbed bows with high-energy cams and machined risers producing extremely high arrow speeds can cost up to \$700. The difference in cost, however, cannot be justified for hunting whitetails, where the average shot is 20 yards or less. In fact, the purchase of an expensive bow is no guarantee of improved performance or accuracy. The most desirable features of a bow are forgiveness and stability, normally found in mid-price range bows with slightly lower speeds. A bow with these features will not magnify your shooting errors you'll actually shoot tighter groups. While a high performance bow is faster and produces a flatter shooting arrow, it cannot make your good shots any better, but it will make your bad shots worse.

A story that I think best illustrates this point is one told to me by Bob Foulkrod, well known bowhunter and hunting guide. While hunting caribou up north one of Bob's clients continually commented on how fast his bow was. Although speed is important, Bob stressed that in a hunting bow stability was a more desirable feature. His comments fell on deaf ears as his client felt speed was the only answer. On the second day the hunter got a broadside shot at a trophy bull 25 yards away. What should have been an easy shot turned into a disaster as the bowhunter sent the arrow screaming a foot over the bull's back. Turning to the hunter Bob exclaimed, "Wow, do you know how fast you missed that caribou?" Select your hunting bow carefully and don't fall for "more expensive or faster is better."

Arrow Rest

Every bow must be outfitted with an arrow rest. The arrow rest is to the arrow what the launching pad is to a rocket. Its first function is to provide a stable launching surface for the arrow. It should also be adjustable to ensure good arrow flight as the arrow leaves the bow. But equally im-

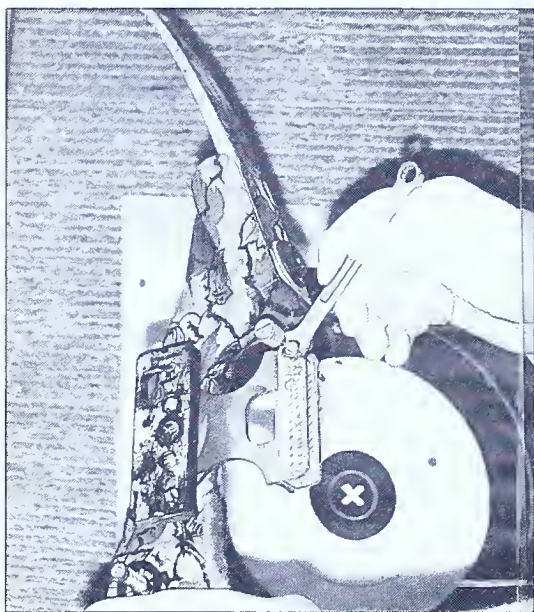
portant, its design should be simple and easy to use. A good arrow rest must be able to move out of the way of the passing arrow and be adjustable for horizontal and vertical positioning on the bow. To accomplish this, arrow rest manufacturers use a combination of springs, slides and locking devices. Here again, however, too much of a good thing can be bad. When selecting an arrow rest ask the dealer to explain the features of the rest and how it is adjusted. The best arrow rest design is one that provides the most desirable results with the least amount of parts or adjustments. For hunting situations avoid rests with delicate wires or exposed springs. While these rests may perform well under backyard conditions, they are not normally suited for the rigors of hunting.

Sights

Although some bowhunters shoot instinctively (without a sight), most choose some sort of sight. A quick check of the bow sights available at the local sporting goods store reveals more models suited for shooting surface to air missiles than for the close-range shooting found when hunting whitetails. Sights with micro adjustments, scopes and fine crosshairs are fine for target shooting; however, a hunting sight — like a hunting arrow rest — must be simple, easy to adjust and rugged. Most hunting sights come with multiple pins, with four being normal and some models having as many as six. A modern bow will shoot an arrow with a trajectory flat enough to require only one or at most two sight pins to cover the normal bowhunting ranges. Using more pins than necessary can lead to confusion under hunting conditions when range estimation and the decision to shoot must often be made in a split second. Another common mistake is using pins with very fine heads. These pins are fine for target shooting under well-lit conditions, but can be difficult to see in the field during optimum hunting times. A larger sight pin will not only be easier to see, but it will also be quicker to pick up when split sec-

onds count.

Hunting sights must be adjustable for both windage and elevation, and these adjustments should be independent of each other. Sights that incorporate both windage and elevation into one adjustment are difficult to set accurately as each adjustment affects both. While the sight adjustments should be easy to make, they must also have a locking device of some type to ensure they hold their position once set. There's nothing more frustrating than to miss the shot of a lifetime because your sight pin came loose and moved out of adjustment. Many hunting sights feature



WHEN CHOOSING a bow sight look for one with adjustments that are both simple and lockable.

locks with knurled knobs that can be tightened with your fingers. Normally these style locks cannot be tightened sufficiently to keep the sight from moving under hunting conditions. The better locking systems incorporate some sort of wrench tightening arrangement.

Arrows

Once your bow has been chosen and outfitted with a rest and sight, the next step is to select the proper arrows. Any archery pro shop will be able to help you select the

proper draw length and size. Arrow selection is one aspect where it is not wise to economize. Arrows are normally priced according to the quality of material, their straightness and closeness of weight match. A more expensive high quality arrow will be cheaper in the long run, as it will stay straighter and produce tighter groups.

The hidden danger in arrow selection is the choice between a heavier, stiffer, more stable arrow and a lightweight fast arrow. Using the same logic as when selecting a bow, it's best to select a hunting arrow that will perform well but be stable and not magnify errors. Remember that hunting shots are often taken under less than ideal conditions. Normal target practice often takes place in a backyard setting on a warm September afternoon. A typical hunting shot often presents itself on a cold, rainy October day when you have to twist around in an uncomfortable position to get one shot at the buck you have been waiting for all season. That one shot leaves no room for error; it's a hit or a miss. Under these conditions simple and stable can make the difference between a trophy on the wall or just another bad luck story.

Accessories

The next, and often most confusing, step is the selection of accessory equipment. The biggest problem facing today's archer is not only what equipment to buy, but also what equipment not to buy. While in an archery shop recently a gentleman approached me that I had not seen in a while. "I have decided to get back into bowhunting," he said. Motioning to the clerk he said, "I just told him to fix me up with everything, I don't care what it costs." Then almost as an afterthought he said, "Do you think I should buy anything else?"

"No," I said, "I think everything should cover it."

While it's important to buy the equipment you need, it's equally as important to buy only what you need. Equipment not needed or overly complicated is not only expensive but it adds confusion and causes

unnecessary problems. Archery has more gadgets and what-ja-ma-call-its than any other sport I know. Archers are normally tinkers and they love gadgets. I know my wife says every time I go into a sporting goods store my eyes glaze over.

My recent trip to the national Archery Manufacturers Association (AMO) Bowhunting Trade Show held in Columbus, Ohio last year illustrates the many gadgets on the market. Three full days at the show and I still did not get to visit all the booths. The amount of equipment was unbelievable. Bow holders varied from a simple screw costing \$1.25 to a hydraulic bow holder that suspends the bow in front of the hunter, weighs 12 pounds and costs \$125. One treestand I looked at was a simple wedge designed to be inserted into the crotch of a tree. The 4-pound unit costs about \$25. On the other extreme was a treestand with a built-in folding ladder weighing more than 30 pounds and costing \$250. These were just two of the hundreds of examples I saw at the show.

Complicated gadgets do not make a better bowhunter. They tend to distract the hunter from concentrating on the important details of the hunt. They also add just one more detail to worry about and one more thing that could go wrong. This is not to say that some accessories are not desirable and won't improve the quality of

the hunt. However, it's important to choose these accessories carefully. I like to ask the following questions whenever I'm considering a new piece of equipment: Will it make me a better bowhunter? Is it simple and easy to use? Is it light and convenient to carry and use? Can I be sure it won't break, twist, squeak or come loose at the wrong minute?

If the answer to any of the above questions is no, that item does not pass my test for purchase and use. Experience tells me that somewhere down the line it will be more trouble than it is worth.

Maintenance

Regardless of how simple you keep your bowhunting gear, maintenance is still necessary. Make sure all of your adjustments on your bow, rest and sight are tight. Mark each of them with some convenient method such as paint, tape, etc. In the event an adjustment does come loose it's easy to reset using the marks. Without those marks it's back to the target range and possibly a ruined hunt.

Equipment today allows every bowhunter to put together just the right outfit for his style of shooting and bowhunting methods. But remember that just because it's for sale doesn't make it right for you. One of the best kept secrets of successful bowhunters is indeed: Keep It Simple. □

COVER PAINTING BY MARK ANDERSON

PENNSYLVANIA is the only state that has a deer season exclusively for flintlock shooters. The season was established 25 years ago for those who want to experience the challenges and hardships our forefathers endured back when downing a whitetail carried much greater importance than it does today. With this month's cover, *The Legacy Continues*, the artist — an accomplished blackpowder shooter and firearm builder himself — portrays a scene that in Pennsylvania can be just as true today as it was more than 200 years ago.

Limited edition prints of *The Legacy Continues* are available from the artist. Prints measure 19 x 23 inches (image size is 16 x 20) and are printed on premium grade acid free paper. Edition is limited to 350 signed and numbered prints, and 35 artist's proofs. Remarques are available upon request. Price, delivered, is \$55, \$80 for artist's proofs. Order from the artist at 348 Deer Creek Valley Road, Tarentum, PA 15084.

You can't hit what you can't see, and the bigger the objective lens the better, right? Not necessarily: There is a trade-off with the larger objective lenses.

Objective Lenses



Helen Lewis

LEWIS shooting a heavy barrel 5mmBR Remington varmint rig topped with a 3-12x Redfield Illuminator scope. He had to use 3/8-inch risers with the scope mounting bases to allow clearance for the 56mm objective lens.

WHEN I pulled into the barnyard the older landowner waved from the lower corner of the barn. I waved and started to get my rifle out of the trunk.

"Don, come here quick!" the man exclaimed.

I didn't know what he wanted, but I lost no time in getting there. I was prepared for the worst, but I stopped worrying when he pointed across a wide valley to some woodchuck den holes. He held up two fingers indicating two chucks, but I was unable to see anything.

"They ducked under when you drove into the barnyard, but they'll be back out. One is small, probably born this year, but the other is a real old-timer, it must weigh 20 pounds. I missed both yesterday, but you can do the honors this evening. It's pretty dark, though, and we might get rained out."

As he was talking, I spotted a head protruding from the left den. He was right about it getting dark. Heavy rain clouds swirled above, and the head was barely visible in my 8x binoculars. Before I could tell him the chuck was coming out, another chuck appeared and stood upright. Seconds later, it was joined by the chuck I had been watching.

"There's your chance," he said with a grin. "Shoot the small one. It will be my Sunday dinner."

He was right about their sizes. I glassed them for a few seconds, wishing I could shoot at the big one. I was in a groundhog contest and, at a few yards short of 200, the big chuck appeared to be a winner.

When I started to slip to the car for my rifle, he stopped me and handed me a bat-

tered Model 219 Savage single-shot .22 Hornet he had purchased new around 1939. The 219 Savage in that era was called a "utility" gun because it was designed for either a shotgun or a rifle barrel. Somewhere through the years (he thought around 1944), a used 5x Weaver Model 335 scope had been mounted to the barrel in a Weaver B mount. According to its owner, the scoped 219 Savage had accounted for plenty of chucks.

I leaned the .22 Hornet against the barn corner and tried to pick up the chucks, but all I could see was a hazy outline of the opposite field. Finally, I found the two chucks, but they looked like shadows. I opened the rifle while telling him the scope's lenses were dirty. There was some truth to that, but even blowing off the dust and cleaning the ocular and objective lenses with a handkerchief didn't improve the image quality to any great extent. I finally got the crosshair on the small chuck and pulled evenly on the trigger, which must have been about eight pounds. The rifle cracked, and both chucks ducked underground.

"You're no better of a shot than I am," he said with a widening smile. "Shucks, I thought there would be meat on the table with you behind the gun."

"Keep an eye on things until I get back," I whispered. "I'm going to get my .222 Remington."

Several minutes later, I removed the screw-type lens covers from the scope and was making a quick visual check of the bore when he told me both chucks were coming out. Maybe things would be different this time.

"They're standing up like statues," he said as I shoved a cartridge in the chamber, closed the bolt and clicked off the safety.

"I think you should do the shooting this time, and I want you to use my rifle."

"Well, okay," he said. "But I think I would do better using the fence as a rest. I can sit, and that will make me steadier."

We slipped quietly to a stake and rider about 15 feet from the barn. He rested the Remington Model 722 between rails and squirmed into a shooting position. It took a few minutes for him to get comfortable and find the chuck in the scope. After getting the correct eye relief on the 1-inch 8x Unertl varmint scope, he said everything was sharp and bright. The smaller chuck folded at the crack of the rifle.

"Your scope is a lot clearer than mine," he mused while examining it carefully. "I guess the reason it's brighter is because its bigger front lens gathers more light."

The hunt was cut short when flashes of lightning and booming claps of thunder brought torrents of rain. The hunt was over, and I never did get the big chuck, but I'm sure the old farmer enjoyed his Sunday dinner.

Although the farmer was not a dedicated varmint hunter, he had more than a passing interest in rifles and scopes. His statement about the Unertl gathering more light didn't surprise me too much; it has been said hundreds of times in scope articles, and it's not unusual to see "gathers more light" in scope advertisements. Well, it may be said and it may appear to be so, but it's not true. Here's why.

A scope cannot sweep in light, so it has no light gathering qualities regardless of who makes the scope. It cannot produce light or even make existing light brighter. In essence, a scope simply conveys existing light to the eye. But there's a catch in this. Some scopes do it better than others do.

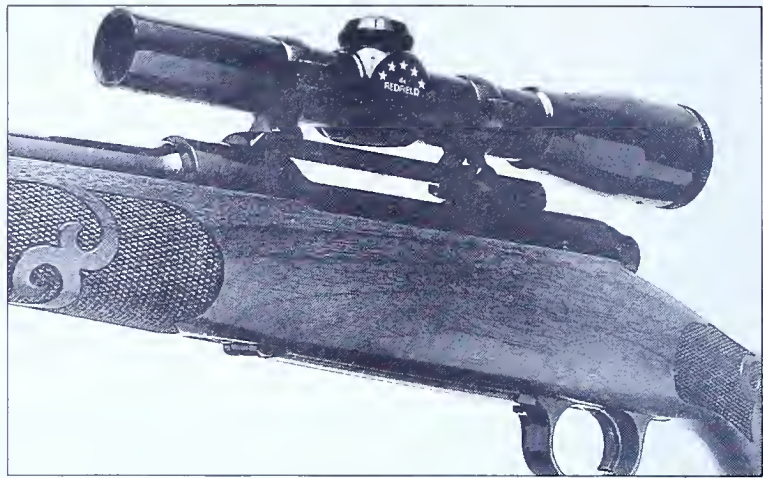
Another term that is misleading is "Twilight Factor." It is only a mathematical formula that fits all scopes of identical magnification and objective lens diameter, whether they are high quality instruments or ones of inferior components and workmanship. It does not take into consideration the quality of the glass, the lenses and their coating.

We can also be fooled by the term "Light Transmission." It's nothing more than a

percentage, but it's the true measure of optical excellence. Before lens coating, maybe only half the light that entered the objective lens got through to the eye. Every lens in an optical system absorbs some part of the light that goes through it. Also, at each air-to-glass surface a part of the light is reflected back and forth from other surfaces. Some of the light from the second, third or fourth reflections manages to get through the exit pupil of the scope. Normally, these reflections are called flares or scatter light, and they dull and degrade the image. This reflection loss runs between four and five percent at each surface. It's easy to understand that an optical system with 10 air-to-glass surfaces could suffer a 50 percent light loss.

Since lens coating came into existence, the picture has brightened, and that's not a pun. A high quality scope today will transmit around 90 percent of the light entering it. I'm testing a Schmidt & Bender 4-16x varmint scope that the manufacturer says transmits between 92 and 94 percent of the light entering the 50mm objective lens. After several tests during evening hours, I'm convinced Schmidt & Bender is not exaggerating. Keep in mind that light transmission is what makes the difference in hunting situations. You can't shoot any better than you can see.

We tend to think that power is the major contributor to seeing targets at long range. Well, there is some truth to that, but resolving power is just as important, if not more so. Resolving power is the ability of the scope to resolve detail. This is a complicated subject that depends on two factors: correction of aberrations that degrade image quality and diameter of the objec-



Helen Lewis

THE REDFIELD 4x Five Star scope might not be as impressive looking as a scope with a 44 to 56mm objective lens, but in the woods this scope offers just as much, and with less weight and bulkiness.

tive lens. Design and manufacturing precision being equal, a larger objective lens resolves finer detail than does a small objective.

It seems obvious that the larger the objective lens, the better off a hunter would be. The old adage that says, "there is no such thing as a free lunch" applies to large objective lenses. Yes, there is a price to pay. A scope with a 50mm or 56mm objective lens is quite bulky and has to be mounted high above the receiver, so the large objective lens will clear the barrel. This is fine with competitive rifles or even varmint rigs, but on a big game rifle a scope with a large objective lens seems out of place. In my opinion, it represents too much bulk.

Don't overlook the fact that the human eye has limits on how much light it can accept. Generally speaking, the pupil's diameter runs from 3mm in bright sunlight to around 7mm in total darkness. Under normal hunting conditions, the eye expands to approximately 5mm, which means that in a high quality scope with a 20mm objective lens an exit pupil of 5 to 6 millimeters will transmit sufficient light. This might be easier to understand by describing the water line that goes through my yard. It is 12 inches in diameter, but the line to

my house is 3/4-inch. As long as pressure stays the same, the size of the main line will not send more or less water to my house. In other words, a 6-inch line with the same pressure would give me the same amount of water. No matter how much light comes through the scope, the eye will accept only about 5 millimeters during normal hunting conditions. This might not be the way an optical expert would describe it, but it's the quality of the light (brightness) that sharpens the image and makes it easier to see.

On the technical side of large objective lens, here's a quote from Bausch & Lomb's 1961 booklet, *Facts About Telescopic Sights*. "There are on the market today telescopic sights with impressively large-appearing objective lenses that actually contribute no more to the image or to relative brightness than smaller lenses would give. This results

from the fact that in such instruments some part of the mechanical or optical arrangement following the objective acts as a diaphragm to reduce the 'free aperture of the objective' and hence reduce the diameter of the exit pupil."

I have a Redfield 2-7x that dates back to 1967. The ocular and objective lenses are round (not the wide field type), and the objective lens is probably 40mm. It's less than a foot long and can use low mounts on most hunting rifles. With the power ring set on 5x, it takes but a second or so to go down to 2x or up to 7x if a power change is needed. The trend toward more powerful scopes with larger objective lenses may make this type of scope unwanted with big game hunters, but from a pure optical viewpoint, this type of variable qualifies as a top quality big game scope for Penn's Woods. □

Fun Games — By Connie Mertz

Fun with Bats

Unscramble and circle the words associated with bats. (Words do not go diagonally.)

I N M A M M A L S O N A R D
I K S U D A N O C T U R N A L
N C A V E E T A N R E B I H A
Y N O L O C B S N R A B A
A T T I C S S Q U E A K S T

Copy the 10 uncircled letters below. Which bat in Pennsylvania is endangered?

answers on p. 64

In the Wind

By Bob D'Angelo

North Carolina grouse hunters encountered 25 percent more birds during the 1996-97 season than in the previous season, according to the Wildlife Commission's annual Avid Grouse Hunter Survey. Hunters reported flushing 5.4 birds per trip in the 1996-97 season — up from 4.7 in 1995-96. The flushing rate for 1996-97 was also six percent above the long-term average.

The Arctic tern annually migrates 30,000 miles between breeding grounds in the Arctic and wintering waters in the Antarctic.

According to the National Center for Health Statistics, the number of fatal gun accidents in the U.S. dropped steadily from 2,004 in 1979 to 1,225 in 1995. This undoubtedly is due mostly to hunter education programs conducted by state wildlife agencies in all 50 states.

American shooting legend Annie Oakley practiced daily to maintain her skills, and it is estimated that over a 40-year period she fired more than 40,000 rounds each year. As a celebrity firearms instructor, she trained more than 15,000 women in safe firearms handling and marksmanship.

Ducks Unlimited announced that eight million acres — an area larger than Maryland — have been conserved in North America for the benefit of ducks, geese, swans and other wildlife. Efforts of DU members and other conservation groups are responsible for this noteworthy feat.

Blue-winged teal sometimes migrate 7,000 miles from breeding areas in southern Alaska to wintering areas in northern Argentina.

Brant geese nesting on Wrangel Island in northeastern Siberia winter 4,000 miles away in western Mexico, and sometimes travel 3,000 miles in 60 hours of nonstop flight from Alaska.

A pack of wild monkeys terrorized a seaside resort town south of Tokyo, Japan last winter, attacking 30 people and sending eight of them to the hospital with bite wounds. Most of the victims were women between the ages of 40 and 80. A harsh winter and lack of food may have been the reason the monkeys came down from the mountains to scavenge in the town.

A study by the National Shooting Sports Foundation found that 90 percent of all hunters polled prefer to hunt deer more than any other game. Squirrels and rabbits tied for second, while turkeys were fourth.

In Brazil, rainforest loss is now five million acres a year — about seven football fields every minute. In 1995 alone, more than seven million acres were destroyed.

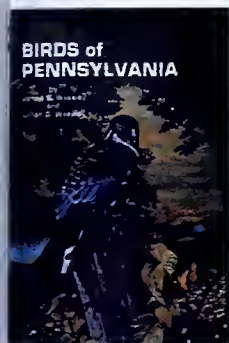
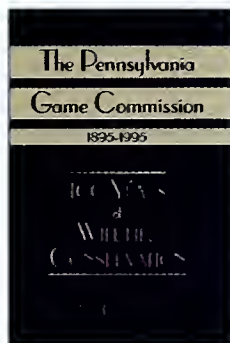
Answers: mammal, sonar, dusk, nocturnal, cave, hibernate, colony, barns, attics, squeaks.

INDIANA BAT

PGC Books

Pennsylvania Game Commission: 1895-1995, by Joe Kosack, covers the agency's first 100 years and includes more than 60 historical photographs.

Price: \$12.26

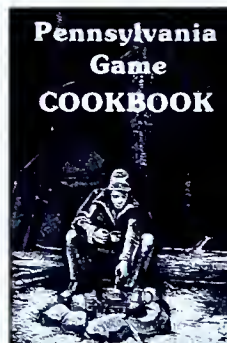


Birds of Pennsylvania, a 214-page hardcover by James and Lillian Wakeley, details birds most commonly found here, plus information on their biology and behavior.

Price: \$12.26

Pennsylvania Game Cookbook is a collection of nearly 200 recipes for popular, and not so popular, game animals.

Price: \$4.71



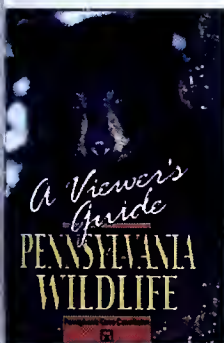
Gone for the Day is a compilation of Game News columns written and illustrated by famed wildlife artist and naturalist, the late Ned Smith.

Price: \$5.66



Mammals of Pennsylvania, by J. Kenneth Doult et al. profiles the state's mammals and their roles in the state's history.

Price: \$9.43

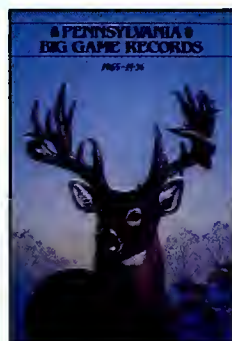


Pennsylvania Wildlife: A Viewer's Guide, by Kathy and Hal Korber, features 93 sites noted for their wildlife viewing potential. Directions, maps and photos included.

Price: \$12.26

Pennsylvania Big Game Records, 1965-1986, lists the state's official trophy deer and bear records, along with many stories of exciting hunts.

Price: \$9.43



Prices include handling and postage. PA residents add 6% sales tax. Make check or money order (no cash, please) payable to Pennsylvania Game Commission and send to Dept. MS, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Items may now be ordered over the phone, Visa or MasterCard accepted, by calling 1-888-888-3459.

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by Laura Mark-Finberg, is this year's Working Together for Wildlife fine art print. The raccoon's inquisitive nature, along with its bandit mask and ringed tail, make this a most popular and well known wild animal among young and old alike.



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For Your Outdoor Enjoyment

CHECK OUT “Anton’s Wilderness” on page nine. This feature traces the long colorful history of Stony Creek valley north of Harrisburg, an area that is now State Game Lands 211. Even at nine pages — an unusually long feature for *Game News* — this is but a summary of what has gone on in this area over the past 250 or so years. The author, Jim Rice, not only did a great job condensing the region’s history into an interesting account, he did the illustrations, too.

Devoting this much space to an historical piece may seem out of place for *Game News*, but it’s actually quite appropriate. This feature demonstrates in many respects the value of our entire state game lands system.

The Game Commission began buying land in 1920 and today owns 293 tracts totaling 1,386,301 acres. There’s at least one state game lands in all but two of the state’s 67 counties. Up until a couple of years ago, when financial constraints became severe, land acquisition was the largest line item in the agency’s budget, after employee salaries and benefits, which are set by the state.

No general tax dollars are used to purchase or manage state game lands. They are purchased and administered, for the most part, with hunting license revenues and excise taxes on hunting and shooting equipment (PR Funds) and are managed specifically for wildlife and to provide public hunting opportunities. It deserves noting here that significant additions to the state game lands network have been made by the Western Pennsylvania Conservancy, the Wildlands Conservancy and other conservation organizations and individuals.

Although game lands have been purchased and are maintained primarily through hunter generated revenues, everybody is free to enjoy just about every type of outdoor recreation on them. Camping, use of motorized off-road vehicles and other activities detrimental to wildlife are the only exceptions. On the other hand, don’t expect to find groomed hiking trails, established picnic grounds, concession stands and swimming beaches on state game lands. Game lands represent the only areas in the state where the needs of wildlife take precedence over all other uses. And with wild lands being lost to housing developments, shopping malls and industrial complexes, these lands will become increasingly important in maintaining our state’s rich wildlife and hunting heritage.

We’re happy to report that with a new license fee structure in place (p. 40) the land acquisition program will be getting back on track.

As “Anton’s Wilderness” shows, state game lands have a lot to offer. Even near major metropolitan areas, state game lands are places where people can go to hunt, hike, fish or simply enjoy a true wilderness experience. State game lands also show how a land can be repeatedly ravaged and exploited, but can then recover when given a chance.

Visit SGL 211, or any game lands in your area. Each has its own history. Each offers solitude, a place where one can escape all the hustle and bustle of everyday living and just relax. — *Bob Mitchell*

letters

Editor:

I've 70 years of wonderful hunting memories. When I was six years old my father let me walk along with him and carry a bunny or bird he shot. I shot my first buck when I was 12. Through the years, my friends and I hunted from Pike County to Potter, for about every game animal possible. I have also hunted in Wyoming, Colorado and British Columbia, but no place compares to Pennsylvania.

B. COPELAND,
BOCA RATON, FL

Editor:

A western Pennsylvania sporting goods flyer included a "hunting tip" suggesting hunters create an easy spot for deer to cross a fence by tying the top wire of a fence to a lower wire, thereby lowering the fence six to eight inches. If you value your hunting privilege, don't do it. While it may or may not cause permanent damage to the fence, it shows a lack of respect for the property owner.

If you should notice a spot in a fence line that needs repaired, report it to the landowner and see what a difference the right attitude might make.

T. BUHITE,
REYNOLDSVILLE

Editor:

The youth squirrel hunt brought back memories of my first squirrel hunt. In the woods before sun-up, I was sitting against a tree with my dad in front of me, a shotgun across his lap. I soon saw a

squirrel and poked Dad on the back. He held his finger to his lips. I soon spotted another, poked him again, and he gave me another hush signal. When four squirrels were on the ground, he opened up with his 12-gauge pump (back before shotguns had to be plugged), got all four, and then turned to me and said, "Son, that's the way to hunt squirrel."

D. HARNED
EDINBORO

Editor:

I don't believe farming practices and open space is the problem with pheasants. I grew up in the Penn Hills suburb of Pittsburgh. It was and still is highly populated, but 20 years ago I would often see hen pheasants walking in the spring with 8 to 10 chicks. Why not stock some wild pheasants from the Midwest? Also reduce the bag limit to one a day, and how about a \$10 pheasant tag?

J. RALCHTHALER,
WEST DEER

Editor:

Moving to Maryland from Pennsylvania about four years ago, I've come to miss the state game lands. I can't believe now how I took them for granted. Also, since I've been in Maryland, I hate seeing the DNR spend hunters' money on anti-hunting programs. I never thought I would miss the

Game Commission and all of the projects that go along with it.

Thank you.

J. MANZ,
FREDERICK, MD

Editor:

After reading about the hunter who had two deer taken by bears, I feel that trying to retrieve a deer from a bear goes against conventional wisdom and common sense.

P. SHAFFER,
WELLS TANNERY

Editor:

As a junior hunter and an avid deer and upland hunter, I never gave waterfowl hunting a thought. But after being invited on the youth hunt in September, I now love it. If other junior hunters have the chance to enjoy the youth days the way I did, I think the youth hunts will be a great success. Thank you Rick, Walt, Scott and the PGC for giving me such a memorable experience.

K. THOMAS,
BETHLEHEM

Editor:

A subscriber for 25 years, it wasn't until I read in the September issue that I knew people can donate money specifically for the acquisition of state game lands.

Enclosed please find a check for \$500.

N. VERHOOG,
REDDING, CA

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**

Dan's Buck

A HUGE, dark shape leaped into the circle of lantern light, blinked, and then bounded over the surrounding brush to merge with the darkness beyond. The whole incident had taken less than a second, but the image of the massive body, thick neck, and long tines set on heavy beams was indelibly etched in Daniel Guyer's memory.

The group of pilgrims — Koontzes, Hetricks and Guyers — were returning from an evening service at the Yellow Creek Church, presided over by Dan's father, Adam, a Brethren minister. They were crossing Snake Spring Mountain following the Dunkard Path, worn by several generations of the devout. The trail led from the southern end of Morrisons Cove to Tatesville, near where the tiny church stood. The route, which crossed the mountain at its lowest point, saved the travelers several miles of walking on a cold November night.

"Ach," said the patriarch. "That was a fine buck, nicht wahr?" The family's language was a combination of English and German, confusing to outsiders' ears but natural to those of the group. Dan's 15-year-old mind was already formulating his plan to hunt the mighty buck. He would run ahead of the rest, change into his hunting gear, pack a few food items along with his rifle and gear, and pick up the track in the fresh snow. He would stay on it

until close enough for a shot. He could visualize those mighty antlers nailed to the side of the smokehouse, dwarfing all the spikes and forkhorns from past years.

His father's reply, coming so quickly after Dan's announcement of intentions, gave evidence that he had anticipated the boy's thoughts. "Not on the Sabbath, Daniel. The buck you may hunt, but on the Sabbath, nix cum arouse."

Disappointment brought a sting to Dan's eyes and he quickly drooped his head, so none of the others could see, especially Lizzie, who lived on a nearby farm. Although nearly two years younger than the girl, Dan had begun to look at his former playmate with different eyes, and the two had begun walking in tandem on the monthly trek to Sunday night services.

Other grievances caused Dan's anger to flare, although he knew better than to voice any of them. Hoping to join Mr. Lincoln's army during the recent war, he was stymied by the pacifist views of his strict Brethren family. The closest he came to serving was to help dig the trenches and build the fortification that General J. C. Higgins laid up to defend the Cove against the rebel hordes.

The war had just ended a year earlier, before he reached the age to enlist without his parents' permission. Although in his heart he wished he had been able to fight, he also thought of his second cousin, Hiram, who was wounded at Gettysburg and later died at Carlisle Hospital. His parents didn't have the money to ship his body

By Harry Guyer Jr.



back, so rather than resting in the family plot, Hiram was buried in a lonely grave far to the east.

The small group split up at a fork in the road, in which the left branch led to "Guyer Corner." The Koontzes would continue on the main road while the Hetricks would soon take a right fork to their home. Dan bid a hasty goodbye to Lizzie, who smiled softly. "I hope you get him," she whispered.

Henry Koontz had donated the ground on which the local church sat, where the faithful had attended morn-

Dan could hardly contain himself as he pulled his hunting clothes over his union suit. A wool shirt, wool pants, a sweater — all covered with a woolen greatcoat. Wool socks covered his feet, stuffed into his leather shoes, which in turn were topped with canvas gaiters. A leather cap with wolf skin earflaps and a pair of rabbit fur-lined leather gloves completed his outfit.

He carefully lifted his rifle down from its place above the mantle. The old gun was a converted flintlock that he had bought for 50 cents from a huckster two years before. The gem, kept loaded but uncapped, was a mishmash of parts from



ing services. Dan's father had preached a fiery 2-hour sermon, after which the family took their dinner at the Peter Baker home, returning to complete the farm chores before time to leave for Yellow Creek and evening services.

It wasn't long until Dan, his sisters and his parents arrived at their house, a tiny 2-story building situated just off the backroad that ran by their small farm. As Dan started to the barn to take care of his chores before bed, his father surprised him by saying, "You'd better ready yourself if you're going to hunt that buck. I'll finish up."

"But I thought I couldn't hunt him on the Sabbath," Dan protested.

"It nears 11," was the reply. "After midnight it won't be the Sabbath be, young nitz-nutz." His father, who could be so stern when delivering his hellfire and brimstone sermons, smiled kindly.

various guns set on a birch stock that had been wrapped with candle wick that was then burned, marking it with camouflaging rings. From a shelf he grabbed his possibles bag and coal oil lantern.

In the kitchen his mother had packed a cloth bag with ham, biscuits, roasted chestnuts and two huge sugar cookies. A glance at the clock told him it was 11:20 when his father and mother wished him luck and retired to their small bedroom. Dan fidgeted for the next 45-minute eternity, but he knew better than to leave early. At last the wall clock chimed 12 times, and the hunt was on.

Because the buck had made its leap toward the north, Dan decided to try to intercept it by heading directly east to the top of the mountain. He traveled overland as the crow flies, cutting across their meadow, through several fields and a strip of woods by the Koontze's house, across a pair of creeks and another woods, and fi-

nally up the ridge. Reaching the steep, he began carefully scanning the snow ahead for tracks.

Near a rock outcropping halfway to the flat, Dan noticed the darkness of a track cutting the snow. A quick glance showed it to be that of a red fox, though, so he moved on. On this spot more than a century later his great, great grandson, also named Dan, at the age of 12, would kill his first buck, and with a bow and arrow.

Reaching the flat, Dan angled toward the Dunkard Path. He paused to place a cap over the nipple of his rifle and returned the hammer to half cock, just in case. He detoured to the spring at the head of the hollow for a drink of biting cold water.

A loud snort shattered the stillness. A dark shape sprang from the hemlocks bordering the spring. The buck had decided to quench his thirst here also. The dryness in Dan's mouth was forgotten as he took to the fresh trail that led him southward.

Daylight broke with the boy still on the track that followed the ridge tops back toward the Dunkard Path, then broke westerly toward Salemville. As Dan crossed the road that separated the two mountains, he deposited his lantern in a hollow tree for safekeeping. The buck made no sign of slowing as it continued west on another flat. Dan stopped to eat a biscuit and ham sandwich, and a cookie. Suddenly the buck's tracks began to swing north, then east again, as if the deer had decided to circle back toward their starting point. In a tangle of grapevines at the head of a deep cut, the boy's sharp eyes caught the flutter of an ear. He shouldered his rifle and drew a careful bead as the complete form of the deer, including its "rocking chair" headgear, materialized.

Before he could thumb back the hammer, the buck was up and bounding away to the west, its white flag waving in the air. Dan lowered the gun and, realizing he had been holding his breath, swallowed deep gulps of air as his heart threatened to pound through his chest.

Near this same spot Dan's grandson, Ralph, whom he would know during the boy's first six years, would kill his last and greatest of many bucks, an 11-point, nearly a match to the trophy that Dan trailed.

The trail led around the backside of Teeter Knob, a ridge Dan knew well. Below the knob was his grandmother's house. If only the big whitetail would offer him a shot, he could drag it right to Granny's door. But the wily animal had more tricks than a monkey on a vine. It circled the knob and backtracked east again. Dan stood on the hogback overlooking his grandmother's farm. Here, his son, Harry, would gain fame as a turkey hunter while trying to eke out a living on the adjoining farm before losing it to the Great Depression.

Dan watched the tracks again turn south toward the top of the mountain. His heart rose into his throat as they crossed over into the Dutch Corner side. If the buck kept going in that direction, the boy would have to give up and return home. Fortune smiled on him, though, as the trail led only to the first hump, then returned back up and over the top and east again.

Fatigue was causing Dan to slow as the sun dipped nearer and nearer the western horizon. The November air was chilly. As darkness settled, Dan dropped down the knob to the Teeter home. He wondered at the absence of lights glaring from the windows, then remembered that the family was on a trip to visit a relative in Virginia. Not wishing to disturb the house, Dan entered the barn, curled up in a pile of hay and fell asleep.

At dawn Dan again took up the chase. The big buck had not idled the night away. Its trail led down into a cornfield where it had fed, pawing nubbins from under the snow. Then it again followed the flat east. Dan

crossed one rock bar, then another, in the shadow of the high ridge. Here his great grandson, named Harry after his grandfather, would take his first buck — a 7-point — almost exactly 100 years later.

During the remainder of the day the buck continued to circle the southern end of the Cove, cresting the mountaintop several times, dropping down onto the flat, then back up again to the top. He had lain up twice during the day, once in a hemlock patch, from which he leaped in a spray of snow and hemlock needles, and once on a slight knoll overlooking a clearing. He left this vantage point silently, only his packed bed and tracks telling the tale.

Each time the buck reached a creek, it would wade upstream for some distance in an attempt to fool its pursuer. After the first several episodes, Dan no longer wasted time by checking downstream for tracks. The old buck, though tricky, was predictable. The boy would continue upstream until the tracks reappeared from the water.

Once the trail seemed to vanish entirely in the midst of a greenbriar patch. Hanging his hat on a sapling to mark the last track, Dan began making ever-widening circles. A full 50 feet from his marker, he found the track again. He was never able to explain the phenomenon, and would

later laugh that the deer “must have sprouted wings.”

That night Dan curled up in a hollow log, which he first warmed with several rocks heated in his evening fire. He awoke stiff and cold just as dawn began to redden the eastern sky. He swallowed the last of his provisions for breakfast. Easier to carry

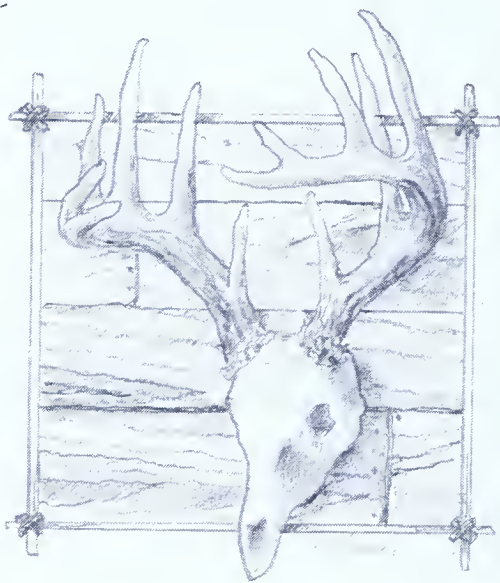
in me than on me, he thought. Anyway, today will be the last day of my hunt, no matter the outcome.

By noon Dan had noted that the great deer’s footsteps were closer together, and drag marks were showing between them. Tired himself, he knew his quarry was also weary and that the hunt was almost over. Topping a rise, Dan spotted the

buck. Its head was down and steam rose from its coat. Again taking aim, the boy thumbed back the hammer. The great head, with its crown of 12 gleaming points, rose as Dan squeezed the trigger.

Dan was my great grandfather, Daniel Flyers who died long before I was born. I do know him, though, from pictures and family accounts. His rifle stands with honor in my gun cabinet, and I carry his powder horn each year in muzzleloader season. His Bible graces my bookcase.

The antlers of his trophy buck hung for years on the side of the family smokehouse, but the elements eventually destroyed the rack. The story, though, was handed down through the generations, and I’m glad to be the one to finally record it. □





Lewis Evans Map of Pennsylvania (1749)

ANTON'S WILDERNESS

TENS OF THOUSANDS of wilderness acres within an easy day's drive of tens of millions of people is truly remarkable. But that's just what we have along the leading edge of the Appalachian Mountains north of Harrisburg. Several factors account for this wilderness area, most notable being the fact that after being largely exploited of its marketable resources, nobody wanted it.

By Jim Rice
illustrations by the author

The Game Commission began purchasing much of this land in the 1940s and designated it State Game Land 211. Another large, connecting parcel is owned by the Harrisburg Water Authority and is left in virtually a pristine state.

Rich in natural beauty, the area today holds tremendous historical interest, too. Years ago the land was an adversary that had to be conquered for its timber and mineral wealth. Lands were cleared, exploited and then abandoned — a story repeated over and over. Most of today's trails incorporate features of this history. They connect wagon tracks or inclined planes, while old stone foundations and collapsed mine entrances dot the landscape.

Think of the first human being to see this area. How long after the retreat of the glaciers in what's now northern Pennsylvania did he arrive? We know little of his looks, language, social customs and religious beliefs. We have found his stone tools

In 1743 cartographer Lewis Evans and botanist John Bartram were guided by the Indian interpreter Conrad Weiser on a journey from Philadelphia to central New York. Evans' map illustrates a path from the Indian village of Shamokin, now Sunbury, through St. Anthony's Wilderness. Weiser traveled the path on his many visits to Shickellamy, the Iroquois vicegerent at Shamokin. Shickellamy, a Cayuga sent by the Iroquois (about 1748) to oversee the various tribes, resided there until his death in December 1748. Likewise, Iroquois embassies from the Six Nations, by way of Shamokin, traveled the path to Weiser's home near present day Womelsdorf and on to Philadelphia. Shamokin was the Indian capital of Pennsylvania until its abandonment in 1756.

and weapons; we know he was a hunter. Did he hunt mastodon and caribou in the valley? The culture of the primitive people was based on wildlife. Leather and stone was the staple of the their society and for centuries thereafter.

The Europeans' arrival, however, changed that forever. The old Indian paths are all but forgotten. On Third Mountain, however, is an obscure trail, unmarked and difficult to follow. One section is exposed to the winds and the forest litter is gone, the ground bare. There, the passage of man and animal has worn a shallow groove in the rock and soil. Standing on that centuries old trail one can easily drift into the past and imagine an Indian hunter or courier approaching.

Today, the Appalachian Trail is the major trail in this area, winding its way along a mountain spine, descending,

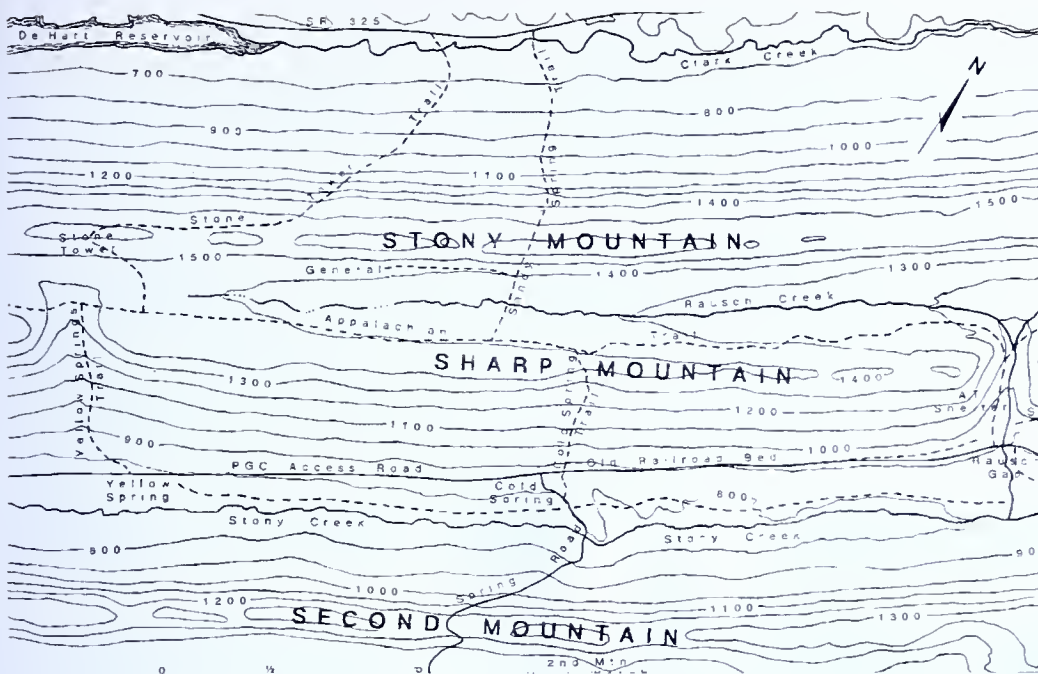
crossing a water gap, then climbing to the crest of a mountain again. The AT is a white man's copy of an Indian path, but merely recreational. Although some mountains had to be crossed, Indian paths tended to be more level and direct. The paths flowed through the gaps akin to the water, but above and dry, taking advantage of the terrain. Many Indian routes have evolved from foot path to wagon road to modern highway.

Among the first whites to lodge with the Indians and describe their customs and character in diaries were the religious missionaries. These explorers possessed courage, uncompromised devotion to their work and integrity, all qualities that permitted them to move freely among the tribes and record what they saw.

Count Nicholas van Zinzendorf, founder of the renewed Moravian church, made three journeys into Indian country during his brief visit in the colony of Pennsylvania. In 1742, on the third expedition and guided by Conrad Weiser, the group followed the route indicated later on Lewis Evans' map of 1749. Like others of that time, Zinzendorf named everything he saw, touched or crossed over. He is credited with naming their settlement, Bethlehem, on Christmas Eve, 1741. On his journey with Weiser, Zinzenforf named the present-day Mahantango Creek "Benigna's Creek," in honor of his daughter. Mahanoy Creek was "Liembach's Creek," named for a fellow traveler. Spangenberg, a Moravian bishop, was the name given to the present-day Shamokin Mountain. And to honor the wife of Bishop Spangenberg, Zinzendorf named Shamokin Creek, "Eva Creek."

And evidently, Count Zinzendorf named the first ridges and valleys of the Appalachians as "Anton's Wilderness," for Anton





Seyffert, a friend and fellow missionary. Seyffert was a member of the first Moravian group to arrive in the British colonies on the ship, *Two Brothers*, in 1735. A Moravian traveling this same path later wrote in his journal:

“ . . . By two o'clock we had crossed the mountain, and struck the Swatara; thence through Anton's Wilderness to the Kittochintny Hills by sun down . . . ”

Narrative of Moravian Bishop Cammerhof (1748)

What is found on Lewis Evans' map of 1749 and also on William Scull's map of 1775 is “St. Anthony's Wilderness,” an English derivative. Let's give this name to the count, none of his other names stuck.

“ . . . bearing resemblance to the bed of a mighty torrent . . . we see no vegetation; for no soil exists between the interstices of the rocks; while the rushing or “rattling” of the stream is heard many feet below . . . locally known as “the Devil's Race Course . . . ”

Richard C. Taylor (1840)

The valleys within Anton's Wilderness are underlaid with soft, erodible shales and siltstones. Sometimes they are difficult to see because the narrow valleys are blanketed with boulders toppled from the adjacent ridges. The mountaintops consist of jagged spines of the more erosion resistant coarse-grained sandstone and conglomerate. Extreme freeze and thaw cycles during the Ice Age accelerated erosion. These conditions caused natural quarrying along the ridge crests. Huge slabs of rock were toppled and slid down the mountain slopes. The finest example of this geologic process is the Devils Race Course, a boulder field approximately 3,500 feet long and 120 feet wide between Sharp and Stony mountains, west of the Rattling Run Gap.

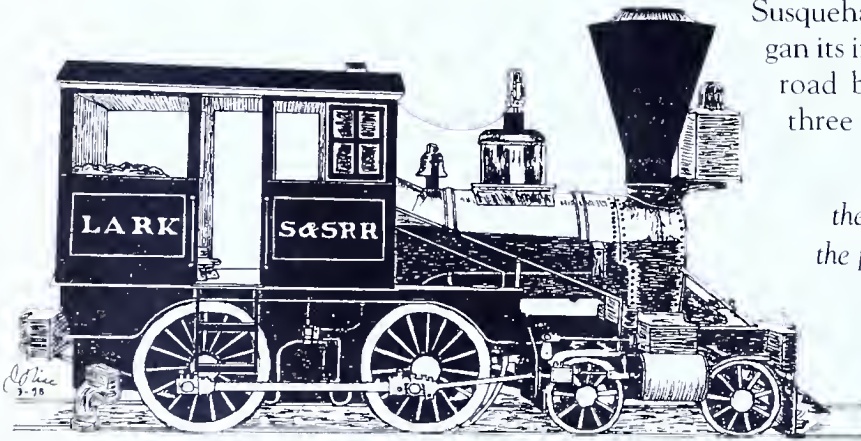


" . . . About the year 1802, it is stated that two boat loads of the coal obtained from about a mile east of the point, were sent down the river to Harrisburg and to Baltimore on trial, as it was a novelty, and was ascertained to be bituminous . . . "

Richard C. Taylor, Pres. of the Board of Directors Dauphin and
Susquehanna Coal Company (1840)

Coal, and the company searching for it, would change the valley forever. The Dauphin and Susquehanna Coal Company was incorporated in 1826 by an act of the Pennsylvania Legislature. Out-of-state financiers provided the funds and the company was empowered to build either a canal or railroad along Stony Creek.

When the Dauphin and Susquehanna Coal Company began its investigation, there was no road beyond the schoolhouse three miles east of Dauphin.



" . . . We are, therefore, still without the power of communication between the Susquehanna at one end and Mount Eagle at the other,

except by very circuitous routes; so that we can reach Philadelphia, 116 miles, in less time than we can pass by any carriage road leading from Port Lyon (Dauphin) to Mount Eagle (Schuylkill County) . . . "

In 1840 the railroad between the Rattling Run mines and the dam in Dauphin was completed. A mining operation was concentrated at Rattling Run Gap, and more than two hundred trial shafts were dug. Two drifts, or tunnels, the Reliance and the Perseverance, were active. An inclined plane was constructed to transport the coal from the top of the mountain to the railroad below. Downstream, a reservoir was built and a large saw mill was nearing completion at Ellendale.

" . . . The accidental fact of there existing no road down Stony Creek valley, and the otherwise utterly impracticable nature of the ground, has fortunately led to the preservation of the timber there. At the present time, therefore, it has the reputation of being the most valuable white oak valley remaining in the country . . . "



In 1850, the railroad was extended to Rausch Gap, connecting all the operations: Ellendale, Rattling Run, Yellow Springs, Cold Spring and Rausch Gap.

“The Dauphin Coal Company have finished their railroad in the most substantial manner with H rail, of the best quality, so that it is said to be the equal to any 20 miles in the State. The western terminus is at the town of Dauphin, 8 miles above Harrisburg, where the company have a basin and large depot, constructed to ship, by the Susquehanna State Canal, any reasonable quantity of coal to market. The works were finished late in the autumn, but in time to send over 4000 tons to market . . . they will commence their regular trade with the opening of the Susquehanna Canal, early in March . . . ”

The Daily American, March, 1851

Early in 1854, the line was open to the Reading Railroad at Auburn in Schuylkill County. The Dauphin and Susquehanna, in conjunction with the Reading, proposed to carry freight from Harrisburg to Philadelphia 20 per cent cheaper than the Pennsylvania Railroad. The route was 20 miles longer, but the D&S claimed it would deliver in one-third less time.” This great difference in cost and expedition is *undoubtedly* owing to superior management,” supposed the *Democratic Union* in April 1854.

	Jan.	Feb.	Mar.	April.	May.
Pass, & Ex.,	\$250	\$1477	\$1932	\$2282	\$2870
Freight,	62	1183	1176	1800	3294
Coal,	939	655	2176	2185	2169
Total,	\$1251	\$3315	\$5284	\$6267	\$8333

“Dauphin and Susquehanna Rail Road - *The Miner's Journal* publishes the following statement of earnings of this road, which was opened through, on the 1st of February:”

Berks and Schuylkill Journal June, 1854

The water from the Virtuous or Cold Spring was long believed to have healing qualities, but access to the spring was difficult. The arrival of the Dauphin and Susquehanna Coal Company, however, changed that.

“ . . . At an early period, even prior to the revolution, an order from the court of Lancaster county directed a survey to be made of a road leading from Lebanon, through Indian Creek valley, to the “Virtuous Spring,” and this road was subsequently directed to be completed. It was, however, not finished further than to the Second mountain; but measures have been taken to carry the order into effect, by completing the road to the Cold Spring. This will assist in opening a communication to that part of the estate.”

Unlike the mining towns of Yellow Springs and Rausch Gap on either side, Cold Spring went on to be developed and promoted as a resort. A hotel complex was built, and two watercolors, dated 1851 and donated to the Lebanon County Historical Society, depict the hotel and bath house.

It seemed to be the best of times, but the Dauphin and Susquehanna Coal Company was in financial distress.

Dauphin and Susquehanna R.R.



FOURTH OF JULY EXCURSIONS!

NOTICE IS HEREBY GIVEN, that on Independence Day no coal or freight trains will be run on this road; and instead of the regular passenger train, there will be TWO EXCURSION TRAINS, doubling the road from both ends.

When the company failed to make payments of interest on its bonds, it was forced to sell its properties in 1859 by the Supreme Court. In its place, the Schuylkill and Susquehanna Railroad

Company was organized, with all the powers and privileges previously granted to the defunct coal company. The new company continued operation, but the dreams of mineral wealth had faded. Once thought to be abundant, the marginal amount of coal turned mining towns to ghost towns. Cold Spring, however, continued as a summer retreat on the line of the Schuylkill and Susquehanna Railroad into the early 1900s.

Today, all that remains at Cold Spring are the foundations of the resort structures. Shards of thick glass are found scattered throughout the estate, remains of bottles used to ship the spring water to various markets by rail.

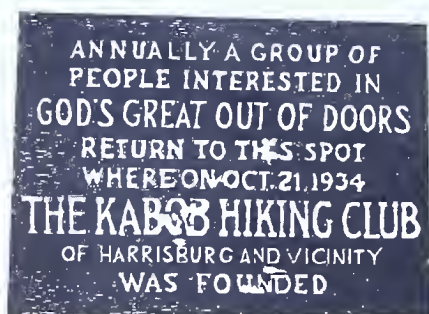
The old mainline Dauphin and Susquehanna Railroad bed is now a Game Commission access road. It can be traversed with a bicycle to the various points of historical interest in the Stony Creek valley.

Traces of the siding at Yellow Springs can be seen today, where empty cars were loaded. The Yellow Springs Trail leads the visitor up Sharp Mountain. The trail includes the bed of an inclined plane, where cars loaded with coal were lowered to a breaker and the railroad for shipment. At the summit, the Yellow Springs Trail intersects the Appalachian Trail. Along the AT east of this point are foundations where housing was provided for the mining force. A blue-blazed trail leads north to a stone tower and foundation at a collapsed mine entrance near the crest of Stony Mountain. The tower was a component of the mine head frame, and a hoisting engine rested beside it.

Rausch Gap can be divided into four areas, using the intersection of the creek and the railroad at the Rausch Creek bridge as the center.

North and west of the bridge is the Appalachian Trail and the Rausch Gap shelter. Allow

ANTON'S WILDERNESS COLD SPRINGS



RATTLING RUN

UNFORTUNATELY, THIS VENERABLE PLAQUE HAS BEEN USED FOR TARGET PRACTICE

THE STONE TOWER



enough time to sit and read the entries in the AT logbook, perhaps adding a bit of insight. The Rausch Gap colliery and railroad sidings were located in this area.

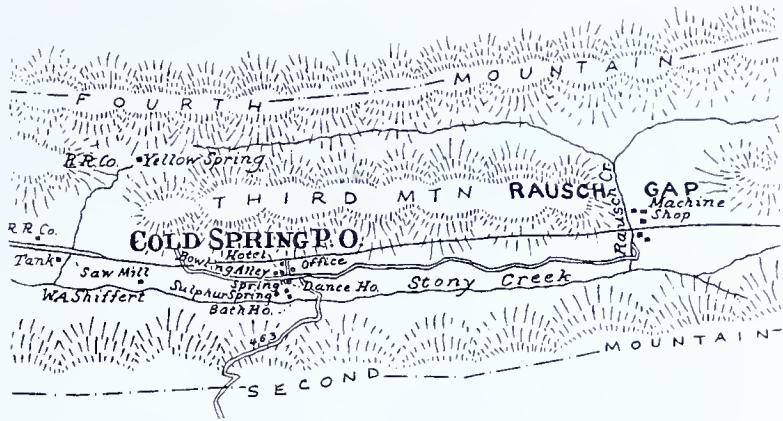
North and east, the dwellings of the company supervisors overlook the carpenter and engine shop near the mainline. An open well remains, and higher on Sharp Mountain, above the foundations, is the bed of a railroad siding. The bridge abutments for this siding remain at Rausch Creek. The siding continues along the south slope of Sharp Mountain to the remains of a breaker at Gold Mine.

South and west was the major residential section. Foundations of row houses can be found. A watercolor, dated 1851 and on display at the Stoy Museum in Lebanon, depicts the company housing. A well filled with debris and the wagon track leading to Cold Spring completes the area.

South and east along the mainline railroad bed is the foundation of a turntable and roundhouse. Metal shavings, turned from a lathe, can be found on the ground. House foundations and a large L-shaped foundation exist in this quadrant. The Appalachian Trail continues through this area, and near it is a well filled with debris. Three tombstones remain in a cemetery on the southeast fringe of the community.

Space does not permit me to relate all the history of Anton's Wilderness. There is, though, a certain untidiness to the history of the valley. Everyone loves a mystery. Whether you find an arrowhead or a piece of hand-forged iron, both are relics beckoning you into the past.

Wildlife abounds. Various food plots throughout the game lands present a chance to view deer and, if you're real lucky, coyote and bear. Do not be afraid to leave the beaten path and explore; you will find many hidden treasures. One early March day I watched a coyote family at play. The pups wrestled with each other and became quite vocal. The mother watched the trails, knowing

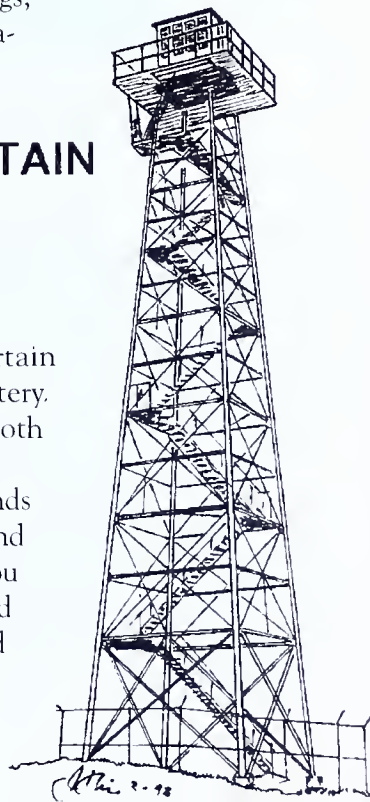


Frederick W. Beers County Atlas of Lebanon, Pennsylvania (1875)



RAUSCH CREEK BRIDGE

STONY MOUNTAIN LOOKOUT TOWER





where danger might appear. I was downwind, screened by brush, enjoying every moment through my binoculars.

Use your ears. In June the hooded warbler's loud melodious song will help you find him. Nesting preference is dense brushy undergrowth, and although difficult to observe, viewing them through your binoculars on a sunny day is worth the effort. The hooded warbler's need for large tracts of wooded area may cause it to play an important role as an indicator species of environmental change.

While nearing the summit of Stony Mountain, pause on the steep slope and listen for the throaty croak of a raven. Ravens have become more common in recent years, more adaptable to human activity than previously thought. Superb fliers, ravens use this skill to harass much larger raptors in flight.

One cold, windy overcast day in early November, I was turkey hunting when a large boisterous group of crows gathered on the crest of Sharp Mountain. I hurried over to find the object of their ire. I assumed the crows' interest centered on a great horned owl. With the wind concealing my approach through the laurel, I crept up and found, on the ground, beneath the noisy crows, a golden eagle, its long wings curved, mantling something. To be so close to this splendid bird of prey was a once in a lifetime experience. Powerful wings lifted the bird into the air and out over Stony Valley, and the crows scattered. What had brought the eagle and the crows together on Sharp Mountain was hunger and the remains of a successful bow hunt, fresh entrails. Curiosity had brought me, an intruder on the scene, but a fortunate



one. I have hunted gobblers and bucks successfully on this ground, watched black bear, bobcat, beaver and coyote. Expect the unexpected.

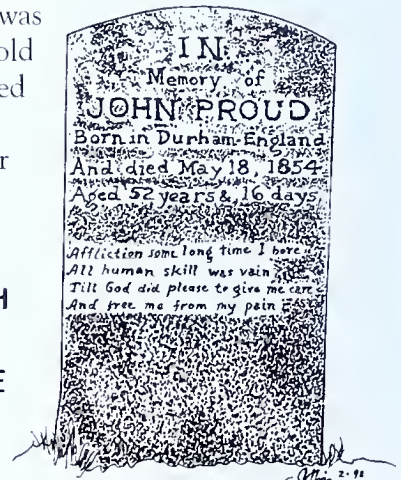
The area is used by many nonhunters, and a short drive from Philadelphia and New Jersey allows weekenders to hike and camp along

the Appalachian Trail. Nonhunters should be encouraged to visit and witness the diversity of wildlife that exists here. Areas properly managed for hunting should be showcased for the nonhunting populace. Hunters, of course, should conduct themselves as amicable hosts.

One day I decided to have lunch with the General. It's not what you think, let me explain. My truck was parked in the Cold Spring parking area and the Cold Spring Trail was chosen as the route for the appointed meeting.

Cold Spring Trail began life as a wagon track over Sharp Mountain. The old road is steep and it switches back on the ascent, lessening the grade as it climbs Sharp Mountain. Most of the road is severely eroded and some areas are inundated after rain. A section of the old wagon track had been coarsely paved with conglomer-

**RAUSCH
GAP
VILLAGE**



ate and sandstone boulders. Laborers of another era had laid these stones to prevent erosion. More than a century later, I view their handiwork and the preserved pathway. Long ago, men used this road to earn a living. Today, I hike this road for recreation.

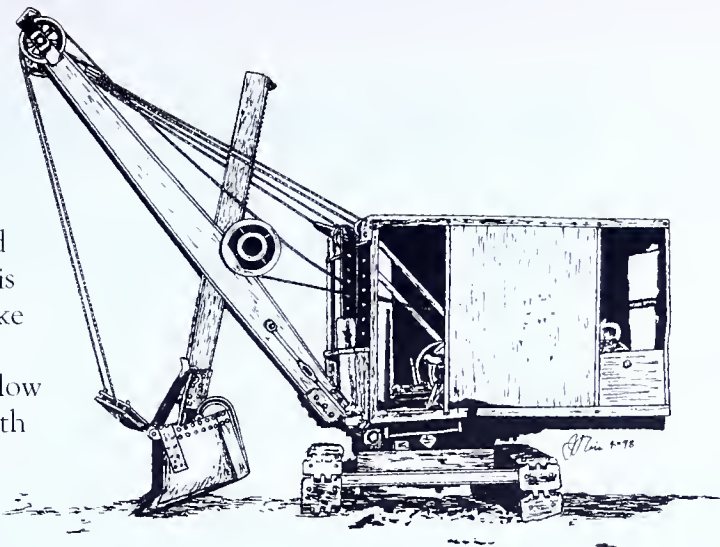
Nailed to the trees are old yellow metal trail markers, covered with black paint to hide the scars. We have evolved from blazing the trees with an axe, to the commonly accepted standard of marking the trails with paint. Faint blue paint blazes can be seen, increasing in number nearer the summit.

Cold Spring Trail ends at the Appalachian Trail on the north side of Sharp Mountain. A short walk west on the AT is the intersection of the Sandy Spring Trail. A turkey vulture circles overhead; I know he's watching me. "Not today," I say firmly, "the General is waiting."

Proceeding north on the Sandy Spring Trail, I cross Rausch Creek on the boulders to the left and continue toward Stony Mountain. As I ascend the southern flank of Stony Mountain, a well defined trail departs to the left. Two signs, old and new, direct me to the General from the Sandy Spring Trail. The trail is not marked, but well used and easily followed.

The shallow valley between Sharp and Stony mountains is a syncline, a trough of stratified rock. The beds of coal are deep within the trough underfoot and resemble a contorted letter "U," surfacing on the south flank of Stony Mountain. There on the south flank at the end of the trail is the General, beside his last work. The hand crank is still there, but the old Sterling engine will not turn over. Manufactured by the now nonexistent General Shovel Company decades ago, the General lies in state in Anton's Wilderness.

Over the past 250 years much has taken place in Anton's Wilderness, but today it stands in many respects like it had for thousands of years, a place where nature holds sway, a place where man can only visit and behold the raw beauty of our natural world. □



The Game Commission began buying land in 1920, and today owns 293 tracts totaling nearly 1.4 million acres. Although hunting license revenues — not general tax dollars — are used to buy and manage state game lands, hiking, photography, nature study, horseback riding, bicycling and other outdoor activities are also permitted, provided those activities don't interfere with wildlife or management activities. Overnight camping is prohibited, except for provisions made to accommodate backpackers on the Appalachian Trail.

Most years, in mid-October, the Game Commission opens the Stony Creek access road for a motor vehicle tour of this area. Watch *Game News* or local newspapers for details. A map of SGL 211 would be helpful for exploring Anton's Wilderness. Order yours from the PGC, Dept. MS, 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Maps cost 94 cents plus 6% sales tax.

Nahani: Beyond the Hunger Moon

By Joe Parry

THE HUNTING seasons were long over. The world around his modest mountain home seemed as empty as his thrice-damaged hunter's heart. He needed rejuvenation of the soul that forever craved wildness, sylvan places of almost deafening silence. He recalled the words of Samuel Foss in his book, *The Bloodless Sportsman*. "The woods are for the hunter of dreams." He so agreed with that sentiment, that the hollows around his home provided far more precious things than sustenance for the physical energy needed by mankind.

Far more abundant and priceless were those things that filled the soul and peaceably nurtured his aging inner spirit. God, he thought after having had three heart attacks, I never want to die and leave all of this behind.

Often he would mention to his family that he was "shamefully afraid of passing over to the other side." That he knew not what awaited him over "there." Frequently, he would ask his personal God, "Are there whitetails there and drumming grouse and the pungent but favorable odor of rotting forest duff?" Simple things in his life, yes, but he cherished them. And he would smile to himself, knowing the answer wouldn't come. Still he went on, wishing for these things but, at the same time, hoping for an extension of life he so loved.

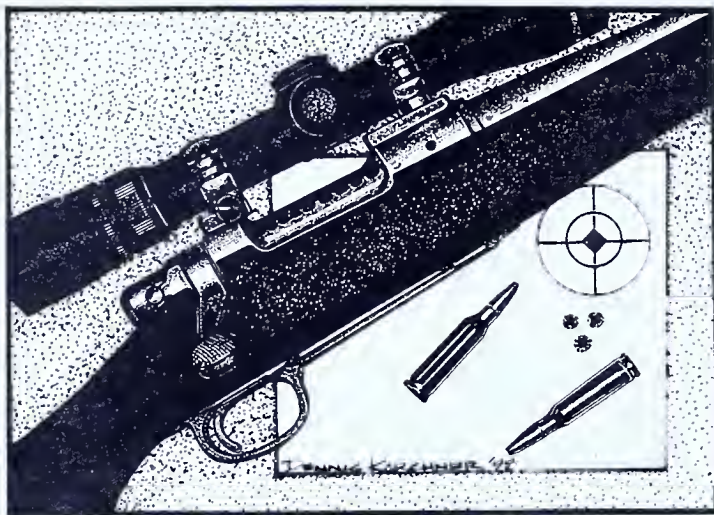
Bluebird days, one by one, were cherished more than ever before, savored and appreciated wholly. The daily voids that tried to overcome him emotionally stabbed at his heart, but were fought off with memories of woodland outings past. Certain animals from long ago sightings and golden times spent with his son helped to fill those crevasses in his heart where none should ever be.

One of his most treasured memories was the sighting, and emotional befriending, of a white deer, a doe, he came to call Nahani. A breathtakingly beautiful animal that always walked alone, shunned by its own kind because of their instinctive fear that her white pelage may draw unwanted attention, thus danger. Nahani means in Canadian Indian (Chimmesyan band) "one who shines." And that she did. Ghosting through the forest like a small cloud of birch woodsmoke. Seemingly trusting, whisper-silent, and with a beauty and majesty that could halt one's heartbeat.

And so, in the dread core of winter, against family wishes, he shuffled slowly and tentatively toward a grove of nearly impassable hemlocks where he felt she might have sought shelter from the knifing winds. Thinking she might already have resorted to eating mountain laurel as a defense against the relentless winter winds, he carried along several dozen small apples he'd kept in the basement. Stuffing them into the pockets of his jacket, he would leave them behind for her, hoping she would find them, for he knew that white-



DENNIS KARCHNER '98



tails will, when food supplies are dangerously low, sometimes eat the toxic leaves of the laurel, only to make them sick. He also knew that deer of every species have been found starved and frozen within feet of hay bales. "What I would give," he said, "to have her take the apples from my hand. What a blessing it would be to touch her sterile white coat, just one time."

His main concern, though, was to help Nahani make it through the dangerous time of the Hunger Moon. If only she would accept his small offering, laden with man scent, it may afford her some comfort against the pangs of hunger. They'll keep her until my son can fall some unreachable browse tomorrow, he thought. Permission, of course, had been granted by the landowner.

Out of breath and aching to the point of tearing eyes and gravely weakened in hips and legs to where he was forced to pull himself along with the help of springy saplings, he looked with relief to the hemlock stand where Nahani might sleep, protected near her winter yard, always alone.

He so respected her tenacity, housed in her snow white, fragile look-

ing body. He often drew his own strength from thoughts of her. Thus, she was special to him, as surely as she would be to his beloved Native Americans. She was a blessing from the Great Spirit, a tonic for the troubled soul. Magic "dressed" in white.

Sitting to catch his breath and take what could always be the last taste of his revered sanctuary, he thought wilderness is the salvation of the world. The sanctu-

ary I may never again visit, worship or give thanks for as it may one day, soon, be beyond my ability to make the trip again. Today then, I must bid a reluctant farewell, a last but grateful thanks for the golden memories. My old heart weighs heavy, for this will be like a friend dying. Man never loses his deep need for solitude, the quiescence that is nature, the freedom that is hunting. Surely the need and urge to kill diminishes as one grays. I seem to have naturally taken on an attitude of live and let live. Still, that superiority of power over another fellow animal is a feeling that exists in all men. Some, however, never come to the raw realization of it or turn on their natural instincts. Thus their predatory transmissions remain in neutral. That feeling, that natural instinct in him, kept him a hunter some 43 years.

His thoughts then turned to the white deer that seemed to have magic following closely behind her — always. He laughed to himself as he looked upon his lumpy appearance, caused by all the apples he'd stuffed in every pocket of his woolen jacket. "I'm sure glad there are no hunters out," he said to no one in particular. "Why they'd think I had a severe case of upperbody mumps." He felt weakened, yet well. Happy to be where he was even though the pen-

etrating cold frosted his moustache and sideburns.

He remembered the huge black bear that once followed Nahani through a hardwood hollow nearby. A bear he'd tried for two years to photograph but never caught a glimpse of until Nahani and her magic brought the silken, ebony-coated bear just in front of his position early one morning during the initial days of the buck season. A day on which, of course, he carried no camera. But like Nahani, and like all the woodland wonders he'd seen over his 40 plus years a hunter, he'd etched the memories of them into a special chamber in his heart where he knew for certain they would never age or yellow.

How I would love to have her accept the apples from my hand, he thought, as a gift. As a bonding of our odd but touching friendship. It would be more precious to me than a gold watch from the president of some large corporation on retirement day. Superficial at best, but here in Nahani's world, there is nothing superficial. He smiled, bent over painfully, and touched a match to the small collection of tree limb debris and pine cones he'd gathered for a small, hand-warming fire.

Soon, his eyelids became heavy from the over exertion of the walk to the hemlock stand. Darkness was about 90 minutes off, beyond the Endless Mountain range. He thought of the simple, yet profound sentiments of George Washington Carver who once said, "If you love it enough, anything will talk to you." And he wondered what Nahani might say if indeed, she could speak. Perhaps she would ask why she must always walk alone, and why she was not blessed with a fawn. Maybe she would say, "Inside I'm like the rest; only my coat is different."

He thought of how the world nurtures prejudice. He was saddened to have learned that, although minimal, there too, is prejudice in the world of wild things. However, this adversity goes relatively unnoticed, for no cruel words spill forth from the mouths

of those who "practice" it, nor do the victims of same feel any hurt, save loneliness.

His heart seemed burdened by the weight of hurt he felt for Nahani, for white deer that walk alone, for whatever the true reason. A student of wild-life biology, he was reminded that partly white deer, commonly known as piebalds, are alleged to be genetically inferior. That their occurrence in hunted populations is less than one percent. He knew, too, that true albino deer, all white with pink eyes, were extremely rare and that both may be hearing impaired. He worried for Nahani, that she may fall victim to a vehicle. What a waste that would be, he thought. What considerable beauty and mystique would be gone from these woods should she perish before her natural time?

He of course cherished those times he saw her in the meadow grasses of late spring and summer. Like a heavenly ghost, an earth held cloud of woodsmoke. And he would always recall the words of a long ago writer whose name he'd forgotten: "the criterion of true beauty is that it increases upon closer examination." Also during this time, perhaps his very last in a woodland where he could not hear the whining of fast rolling radial tires on a highway to nowhere, he wanted to see Nahani up close. He waited until the chill of dusk urged him homeward. She hadn't shown herself but, strangely, he felt certain she was nearby. She was magic, Big Medicine and she was "always there."

As he left the woods, he turned one last time to say farewell to a place he may never again visit. His eyes glistered from the evening wind that clawed its way through his woolen jacket and, through that painful stabbing in his aging eyes, he spotted the ghostly shape of Nahani.

He watched her furtive movement as she sneaked her way toward the spot where he sat. Her keen eyes straining for a clearer view of her benefactor, for her hearing was, obviously, severely impaired. Otherwise, he thought, she would never have come in this close were she able to hear my careless footfalls.

Nahani was the benediction of his day, perhaps his last time in this most favored hollow. He somehow felt she revealed herself especially for him. But no, it was Someone else, a miraculous answer to a simple man's prayer. And so, simple man he is, he whispered to Nahani, "See ya."

Summoning the memory of that day helped brighten many otherwise spiritless days of winter. He felt blessed but, still, as always, he worried about Nahani living comfortably beyond the Hunger Moon. He would constantly watch the field across from his home for her. She was never there, though, at least during daylight. However, there was some comfort in his old heart knowing his son, Justin, had cut considerable browse for her and any other white-tail in the area. It would soon be spring and his concern would lessen.

During the time of the "First Leaves," he again saw "his" Nahani. As did all deer, she grazed the meadow in search of forbs. He took a photo of her without advantage of his telephoto lens; still, it revealed her unique majesty and her unforgettable look of innocence backed by an odd awareness of all that was around her. The photo



sits atop his private dresser with other, equally sacred photos. Nahani was special to him, to her Mother Earth, and to those few who were fortunate enough to spot her.

As far as he could tell, it was Nahani's third spring. When he'd first spotted her in the field that spring, she appeared to have wintered well. But he

knew that ribs wouldn't show too well beneath a coat of long, white hair. She was small, as are most whitetails of this pelage and, in the greatest sense, this characteristic may have been to her advantage. Smaller body, he thought, requires less food, less exertion to move about in search of food during the Hunger Moon. Had Nahani fared well through winter?

At least she'd made the journey and, most likely, alone.

One late spring morning his son walked to the garden of a neighbor who would offer some saddening news.

"Hi, Justin. Suppose you and your father heard about that white deer you two loved so much?"

Of course the young man hadn't, and his father was still at home nursing his first pot of coffee.

"No. In fact I haven't even seen Nahani since the beginning of spring. Why?"

"Had a name for her, huh?" questioned the neighbor, Francis. He looked down toward his muddied boots, then into the questioning, anxious eyes of the young man. "Well, Justin, she was killed last night, hit by a car or truck over on Maple Hill."

The young man thanked Francis for telling him, and without saying goodbye turned and left. He walked home, slowly, not wanting to break the news to his fa-

ther. That time came and went. Little else was said that week about little Nahani. A few frequent sentiments were shared, each of them similar in nature. "Sure do miss seein' ol' Nahani, don't you?"

Nahani had made it through three Hunger Moons. She'd added a pleasant and brilliant presence to the otherwise gray woods of winter and a special magic to the flowered meadows of spring, only to fall victim to what was, perhaps, a careless driver in deer country. But then all of Pennsylvania is deer country, so most must question their judgement. Why are we not more careful, more alert when traveling the back roads? Our roadkilled whitetail figure is unnecessarily high, a waste we all must strive to eliminate.

Summer passed and although the memory of Nahani endured as though etched in stone, little else was said of her passing. At the turning of the first leaf in autumn, a long box showed up at the old hunter's mountain home.

"What's that, Pop?" Justin asked.

Pop smiled, knowing full well that his son knew what was inside the box.

"Oh, I bought your mother another deer rifle."

"Yeah, right. What caliber this time, Pop?" The young man laughed as he questioned his smiling father.

"Oh, just one of those new .260 Remingtons in a Model Seven stainless with synthetic stock."

"Thought you weren't gonna hunt anymore?"

"Well, Partner, I may not. But I've heard so much about how great this rifle and caliber is that I felt I ought to at least try one out, right?"

"Sure, Pop. Sure."

The Remington shot impressive groups with factory loads. Noticeably better with careful handloads using Barnes X bullets in 140-grain. Two trips to the shooting range and the old man was getting the autumnal itch.

Certainly, he found enough heart to

make it to his favorite woodland place and, yes, he went for whatever his reasons. Perhaps just to visit Nahani's old haunt once again.

As he sat atop a familiar blowdown the first day of buck season, he spotted something brilliantly white coming in from his right. The sun had just begun to cast rays through the overstory, making the gray woods comfortable and uncommonly pleasant. Seconds passed and then into clear view, not 30 yards away, stood a white deer. A smallish buck with six, tight points. "Big Medicine," he whispered. "White magic on my side of the mountain again." Was this Nahani's brother or another fawn out of the same doe? Would he raise the stainless barrel of the Model Seven and make this deer his bounty? Or would he instead, stand and leave the hollow? Sure, it may have been his last time out, and certainly he knew the Remington would do its job. But then if you knew him, you most likely heard him say quite often, " . . . success is not always measured in terms of winter meat and mounted antlers."

So, the old hunter waited until the small white buck passed and disappeared over a bench to his left. Nahani's brother, too, walked alone. He smiled as he always did at the end of a successful hunt and, if one listened closely, you could hear the old hunter softly reciting the poet, Keats, as he shuffled toward home. "A thing of beauty is a joy forever. Its loveliness increases; it will never pass into nothingness." And this is how he felt about Nahani, and about her relative. He no longer needed the bounty from Mother Nature, but indeed needed the blessing and security of knowing it shall always be there. For him, for all mankind, as the memories alone can sustain us if we will only store them in the proper place. □



Chasing Coyotes

By Freddie McKnight

MY FIRST encounter with a coyote was far from successful. It was during the archery season, and a friend and I were taking turns driving islands of brush in the middle of a farm when the commotion of many pheasants caught our attention. There was so much noise that we had to see what was going on.

Topping a rise, we looked into the hollow where the noise was coming from. There amidst a patch of sumac and small locust, were three or four roosters sitting about six feet up in a small tree. A rather large coyote be-

neath the tree was attempting to make them its midday snack. It would jump at the birds, not quite attaining the needed height, and then reposition for another go.

With the coyote focused on the birds, I tried to slip into bow range. It almost worked until the wind blew a gust of scent towards the wild canine. It wasted little time skedaddling out of the area, but the encounter caused me to develop a deep fascination for coyotes. With trapping season only a couple of weeks away, I vowed to catch one. I did not know it then, but I was in for an eye-opening education.

Being a proficient fox trapper, I figured

coyotes could not be that much more difficult to catch, but that was until I found a couple of my number two coilsprings in pieces. I found out the hard way that these eastern brush wolves, weighing up to 60 pounds, were going to be much harder to hold than the foxes I was used to catching. Worse yet, once the coyotes found my sets, they made it a point to either avoid them or set them off whenever they passed through the area. Still, I persisted with my mission; after all, I had nothing to gain but success.

Going into the third week of the trapping season, I became concerned that I had scared all the coyotes out of the area because none of my sets had been disturbed for more than a week. Actually, these sets were just dirthole sets like I used for fox, but modified for the bigger stride of a coyote. Instead of the six inches I use for fox, I made the trap beds at least a foot from the bait or lure.

One magical morning, all fell into place. As I approached a pair of dirtholes, two

coyotes were sitting there waiting for me. Wanting to take a photograph of my first coyotes, I rooted around in my jacket to get my camera. When I looked back up, only one coyote was there. One was caught in both traps, the other had simply sat by its companion until my approach scared it off. The one I took was a blonde phase, the other reminded me of an overgrown red fox. At home, the male coyote tipped the scales at 43 pounds.

That first coyote gave me confidence, and I kept at it until the weather got really bad. In the weeks that followed my catch, the only close encounter that I knew of was one set of tracks in a sprinkling of snow by a set. It seemed as though the coyotes had moved off, but I now think that hunting pressure as well as spotlighting activity, then the many gut piles from deer season, had caused them to change their feeding habits.

During the winter small game season, while out after rabbits and grouse, I encountered coyote tracks everywhere I went. I quickly learned that these critters can cover a bunch of ground in a single night, and that if I were to take anymore, I would have to do the same. My big break came during a midday hunt on a Saturday. In my county, the Emergency Center tests all fire station sirens at noon. Being a couple of miles away from one in a thicket I was hunting, I could hear what I thought were dogs howling back at the siren. My suspicions got the best of me, because I was miles from the nearest home, so I went to investigate. What I found was a pack of coyotes. I did not get any on that outing, but I had at least found them.



THE COYOTE would jump at the pheasants, not quite attaining the needed height, and then reposition for another go.

Giving them a few days to settle down, I slipped back into the area armed with my 10-gauge shotgun and a predator call. I also had two other hunters with me, each carrying rifles. A few days prior to this hunt I watched a coyote hunting video, and although it was a great help, it offered no hint to what our hunt was going to be like.

Just to see if the coyotes were still there, I let loose with a howl. We sat for perhaps a minute with no audible reply, but then, all of a sudden, coyotes seemed to be coming out of the brush everywhere. The sudden appearance caught all three of us by surprise, and before we could get any shots, all the canines had high-tailed it out of the area, but they now had us hooked. With the breeding season fast approaching, we decided to leave them alone for a couple of weeks before trying again.

Knowing other places where coyotes had been seen that fall, I tried a couple, but after several fruitless outings, I was wondering if I would ever have another chance. In fact, I was getting a little sloppy and lazy in my approach, not taking into account the wind direction, not picking cover to break up my outline, or not sitting perfectly still. Call it human nature, but the fact remains that one can get bored when hard hunting effort produces nothing.

It was during one such sloppy setup that I was caught again. I was playing a tape depicting a coyote killing a deer when I spotted movement. Having called in everything from foxes and cats to the neighbor's dogs, I didn't get ready for the possibility of a coyote.

Coyotes may be hunted with either a hunting or a furtaker license and trapped in season (Oct. 17, 1998, to Feb. 27, 1999) with a furtaker license. Coyotes may be hunted throughout the year, including Sundays, but they may be taken during regular antlered and antlerless deer seasons or extensions only by hunters with a valid deer tag. Livestock growers and eligible landowners may trap or hunt coyotes on their properties at any time without a license.

Well, one stepped out from the brush not 10 yards away in the open. It would have been easy to drop it with the shotgun that lay pointed the other way across my lap. Even before I thought about moving, the wary animal sensed something was amiss and melted back into the brush.

I didn't know it then, but that would be my last encounter of the winter with these fascinating animals, because heavy snows moved into the region and made getting to the hotspots difficult. It had been a great fall and winter of education, though. The lessons I learned that year have helped me to better understand the coyote and its habits. I am happy to report that now, quite regularly, a couple of coyote pelts adorn my fur stretchers each fall and winter.

If more people would take the time to better understand the coyote and its role in nature, its undeserved bad reputation would be more tolerable. It is a predator, one that sometimes inconveniences humans, but with continual habitat encroachment, it has little choice but to learn to adapt or die. Fortunately, it has adapted to survive the onslaughts sought to eradicate it. □

Fire: It's Not a Bad Thing

By John W. McGonigle

Smokey the Bear had it only half right.

MANY OF US grew up watching and listening to Smokey the Bear tell us, "Only you can prevent forest fires." He spoke anthropomorphically (human attributes given to animals) of the dangers to wildlife caused by fire and the need to be cautious with matches and campfires. And he was right. Unchecked fire can destroy both habitat and wildlife with long term, devastating effects. Here's the rub. Smokey was so successful with his message that fire is nearly universally considered bad, even though properly controlled fire is a valuable wildlife and habitat management tool.

Indigenous American people knew better, though. They noticed that buffalo and other animals moved in to feed on the fresh greenery that regenerated in the wake of wildfires commonly caused by lightning. Native Americans in the New England and western regions used fire to keep grasslands open to provide grazing for bison. While one might think that solid, extensive forest once covered the northeastern United States, it at one time included large savannas, areas

made up primarily of grasslands interspersed by trees and shrubs. (Black jack oak, shrubby oak, post oak, bear oak, dwarf chinquapin oak and pitchpines are common savanna species.) Native Americans maintained some of these savannas for grazing through judicious burning.

Jim Brett, former curator at Hawk Mountain Sanctuary, once told me that grouse hunting in the area of the sanctuary was excellent in years past because of the fires caused regularly by sparks from the steam engines from the local railroad. The new growth offered food and cover that benefited grouse and other wildlife species.

While uncontrolled fire is a danger

GAME COMMISSION LMO Matt Belding surveying prescribed control burn. Note the leaf blower; it's used to extinguish flames when operation is completed.



to the environment, prescribed fires, ones set purposely, have specific and positive goals. Reducing natural fuels, reducing rodent populations, enhancing mobility for brooding birds and curbing undesirable plant growth are some of the desirable outcomes of prescribed burning.



WHILE uncontrolled fire is a danger to the environment, prescribed fires have specific and positive goals. Reducing natural fuels, reducing rodent populations, enhancing mobility for brooding birds and curbing undesirable plant growth are just a few.

Natural fuels (leaves, old growth grasses, etc.) build up over time, heightening chances of wildfires. Periodic prescribed burns keep such fuels to a minimum, thereby reducing the chances of wildfire.

It is a biological fact that prey populations determine the number of predators in a given area, rather than the other way around as was once thought. Reducing rodent populations through burning will curtail predator populations and help equal the playing field for game and other desired species, allowing a better survival rate.

Natural succession dictates that plants mature at a given rate and that other plant species invade the spaces of others. The invading species ma-

ture, and over time fields become overgrown with shrubs and woody plant growth, eventually maturing into woodland. While this is a natural occurrence, it is not beneficial to several upland species, including pheasants, "that will not nest in fields with more than 10 percent woody cover," according to Pheasants Forever biologist John Beall. Prescribed burning derails succession to ensure several desired management objectives.

The Game Commission has been using prescribed burns for about 10 years in the western part of the state. My first opportunity to see one came in 1992, when a prescribed burn in the Chrome Barrens near Oxford, Pennsylvania, took place under the auspices of the Nature Conservancy, owners of the tract.



Watching the burn team in action was exciting, and observing firsthand the positive benefits of the procedure made for an interesting day.

As a result of attending a program on farmland restoration practices, I received an invitation to view a prescribed burn from Game Commission Land Management Group Supervisor Matt Belding. Belding and his crew were performing prescribed burns on SGL 280, comprised of over 5,500 acres, at Blue Marsh Reservoir near Reading in an attempt to establish warm season grasses.

Warm season grasses can take high, summer temperatures without being destroyed and are hoped to be one of the saving graces for healthy pheasant populations. They offer cover when other grasses have died off. Switchgrass is the predominant warm season grass at Blue Marsh.

The author thanks Matt Belding and his excellent crew for their assistance with this article.

As Belding and I reached the burn site his crew was already laying down a stream of water around the targeted field. Additionally, the field of switchgrass to be burned was rimmed by green grass that would ward off spreading fire. "We've found the procedure to be very safe," said Belding, "as long as we plan carefully and chose the proper weather conditions."

Maintenance Supervisor Dave Zimmerman explained that one of their concerns at Blue Marsh is the spread of locust and black cherry trees. "They'll just take over if given a chance," said Zimmerman.

Belding pointed out a field that had been burned just the year before that needed a repeat dose of fire because of weed competition. He explained that reverting farmland is only good to a point, but then in the more advanced stages of succession, it becomes less attractive to wildlife. Later he drove me to a couple of locations on the property where this mature, overgrown type of habitat has become inhospitable to small game species.

With the water truck standing by in the unlikely event of an emergency, food and cover corps personnel began to light, with a drip torch, the field of switchgrass to be burned. "We want fires that aren't too big, fast or hot," said Belding, looking on with satisfaction as the fire spread with the help of a gentle breeze. The fire was perfectly planned and it didn't take long for the field to burn completely. Belding and his crew used leaf blowers to put out the small bits of fire remaining around the edges of the field, and it was quickly over. Next field.

Walking across the burnt-over field, Belding pointed out numerous paths made by field mice and voles. We found several rodent nests, including one with a mouse that scurried safely away when Belding turned the nest over with the toe of his boot.

We moved to another field and repeated the procedure. Belding and his crew seem to have a pretty good handle on the burning technique as it all came off without a hitch. A steady but gentle breeze again caused the field to burn rather quickly.

"There's a lot of research going on now concerning fire," said Belding, "I think we'll see that we're going to need fire to fix our forests."

With the Pennsylvania Game Commission and other leading conservation organizations like the Nature Conservancy successfully using prescribed burns, it's likely that this historic management technique will become more common. □

COVER PAINTING BY JERRY CONNOLLY

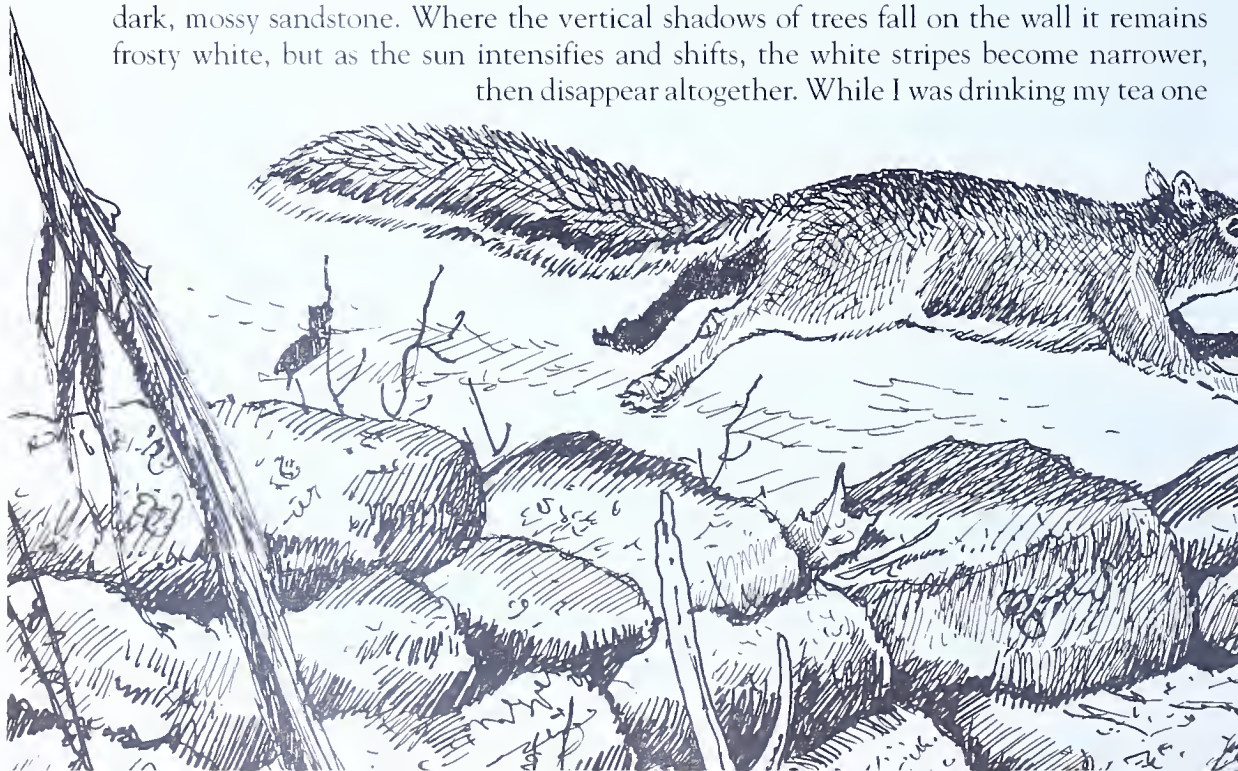
GHOSTS of the woods, bobcats — despite being somewhat common in many areas of the state — are truly a sight to behold, and spotting one is a real treat. Spotting two — as depicted on this month's cover — is cause for celebration. This month's cover is limited to 300 prints. Prints measure 19 x 25 inches (image size is 15 x 22½"). Price, delivered, is \$65. Order from the artist at RD 2, Box 176, N3, Selingsgrove, PA 17870.

NO TRESPASSING

I DISCOVERED the old homestead years ago when I noticed the sawed off end of a weathered plank sticking out of the leaves. I pried it from the earth and flipped it over. It was a trespassing sign without a space between the words, so it appeared to be one long word — NOTRESSPASSING. The maker of the sign obviously wanted to get the message across as boldly as possible, but had more letters than board. Had he not misspelled trespassing, though, without the extra S in the first syllable, there would have been room for a space between words. I liked the sign with its folksy block letters, and considered taking it back with me to hang in the studio, but set it back in place. I was already a trespasser and didn't want to be a thief as well. Farther up the wagon road was a little flat bordered by stone walls and a foundation covered with greenbriers and grapevines. Over the years I've hunted grouse and turkeys and deer here, and it has become a favorite haunt.

I always feel a bit like a trespasser whenever I hunt around old woodland settlements; I think it has something to do with my belief that in the woods some things linger forever. But I feel a sense of belonging at this secluded homestead, as it is a place where I might have lived in older times. Reclaimed by the forest long ago, it became part of public land, notated by the icon of a tiny red house I drew on the inner whorl of a mountain's thumbprint on my topo map. On a recent winter day I visited the homestead again, and at those tumbled ruins realized why this place clings to my subconscious whenever I daydream of the woods.

It's a 2-mile jaunt to the flat in the uplands, but always a pleasant hike on the rutted woods road lined by stately oaks and hemlocks. Once there, I will eat my breakfast of a peanut butter and jelly sandwich and sip hot tea. Hoarfrost coats the trees and rocks and the tasseled tops of weeds, but by the time I reach the ruins, sunshine is flooding the flat. A gray squirrel hops along the top of the wall, spots me, then leaps over the other side. The stone wall is striped white and green as the light burns off the rime revealing the dark, mossy sandstone. Where the vertical shadows of trees fall on the wall it remains frosty white, but as the sun intensifies and shifts, the white stripes become narrower, then disappear altogether. While I was drinking my tea one



PENN'S WOODS

SKETCHBOOK

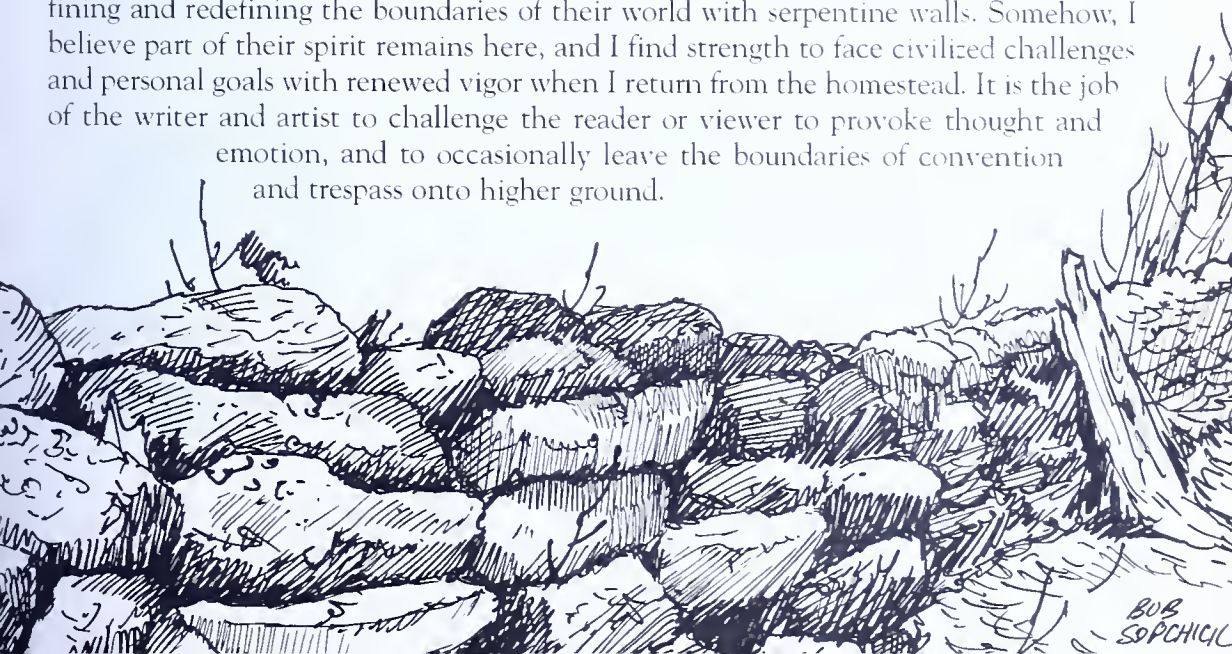
by
Bob Sopchick

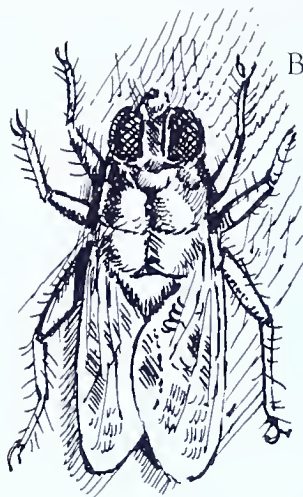


of the stones in the wall catches my eye because it remains white. With much effort I remove it and am surprised to see that it is a perfect circular disc. I can't fathom what kind of stone it is, but it's much grainier and softer than sandstone. Finally, I deduce that it is not a stone at all, but several inches of mortar that had hardened in the bottom of a bucket, was knocked out, then stuck in the wall. A single odd stone among tens of thousands of green ones.

The homestead is much higher up the mountain than the rest of the woodland settlements. Perhaps these folks had a bit more pioneering spirit than their distant neighbors, to live so far in the uplands where snows lay deeper, winds roar stronger and fog is a sister to every rainy day. With the bucket stone on my lap, I finish my tea while sitting under a chandelier of grapevines in one of the world's grandest dining rooms. I place the white stone back into its cleft in the wall and stack the darker stones upon it. Without this stone the wall would have remained, but it would never have been the same. It takes the odd stone to make a wall, or life, interesting.

My attraction to this place lies beyond the enchanting setting, however. Here, people dared to exist beyond the limits of others, challenging the brutish forces of nature, defining and redefining the boundaries of their world with serpentine walls. Somehow, I believe part of their spirit remains here, and I find strength to face civilized challenges and personal goals with renewed vigor when I return from the homestead. It is the job of the writer and artist to challenge the reader or viewer to provoke thought and emotion, and to occasionally leave the boundaries of convention and trespass onto higher ground.





BIRDS OF PREY are fascinating subjects, not only for their beauty, but for the inspiring sense of freedom they display while migrating across boundaries both natural and man-made; mountains, plains, lakes, beaches, cities, rivers, neighborhoods. One autumn day I watched an immature goshawk being banded and processed. A large brown fly crab-crawled out of the hawk's breast feathers and buzzed slowly around inside the banding shanty, trying to alight in the shadows under our necks or inside the dark areas of our jackets. Scott Weidensaul, the bander, swatted it down and crushed it in the jaws of needlenose pliers. It was a hippoboscid fly, also known as a flat fly, a parasitic insect that lives on birds. I had seen them before, often abandoning the diminishing warmth of a grouse that

I had just shot, buzzing towards me (flat flies have poor vision and a weak sense of smell, and readily seek out the dark folds or creases of nearby living things), then disappear in a looping flight through the woods in search of a new host.

There are many species of hippoboscid flies and they live only on birds, not mammals, and do not bite humans. These parasites drink the blood of their host, and several may live on a single bird, but not so many as to weaken it. Stranger yet, are the tiny bird feather-lice that hitchhike on the body of a hippoboscid that is about to abandon its dead host bird, relying on the abilities of the fly to find a new host. Whenever I see a migrating hawk riding a thermal I also think of the hippoboscid fly who knows only the feathered topography of its host, although at the same time is a privileged passenger on one of the most wonderful journeys on earth; and deeper yet, the feather-lice bound to the chitinous plain of the fly.

THE WORDS of a New York city advertising executive speaking at a lecture on advertising strategies stuck with me over the years: "When everyone zigs, you must zag" and similarly, "When everyone runs, you must stand still." Good advice. The basic premise of gaining notice is to sometimes present a contrasting plan. In the natural world, myriad forms of flowers "advertise" to the legions of insect pollinators by displaying colorful and dramatic landing sites, offering delectable nectar, as well as every nuance of sweet fragrance. But the carrion flower takes a different tack. Instead of sweet perfume wafting from the small greenish flowers, it offers up the stench of rotting flesh. Some insects, particularly beetles and small flies, hasten to the source of this delectable odor and pollinate the blooms. In the world of modern advertising the carrion flower practices what is known as target marketing.

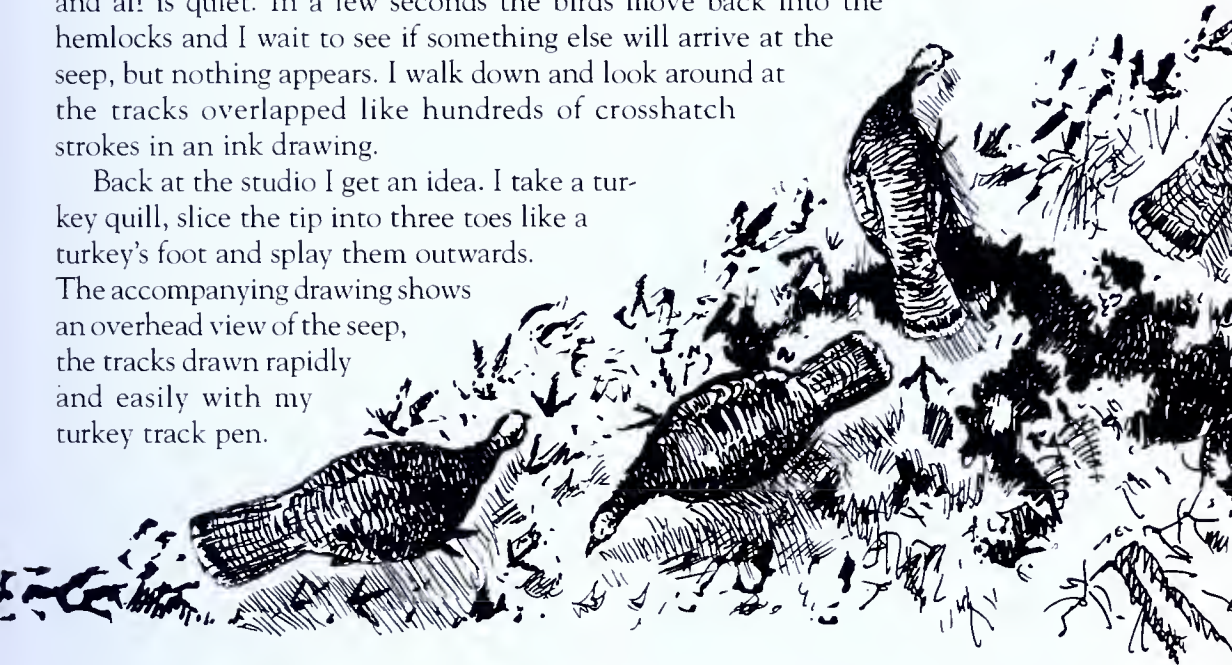
I don't have any drawings of carrion flowers in my sketchbooks, but I do have some of the fruits here in my studio. In my wife's flower garden next to our driveway there are two trellises, and I am considering planting some of the seeds at one of them. On second thought though, perhaps it would be in my best interest not to plant them so near the kitchen door where their dead mouse smell might not be conducive to dining. Deliberating further here, maybe it would be best if I didn't plant them in any of her gardens. Contradictory to this month's theme of reaching beyond convention, I think this might be an instance where I'd better play it safe. At any rate, here's what the autumn fruit looks like.



AFTERNOON finds me above a spring seep, the inch of fresh snow blushes pink in the low sun, shadows violet, the woods beyond a steely gray. The seep trickles into a delta of soggy leaves and slush. Its ventriloquial voice seems at once to murmur from down in the hollow, then in back of me or from my left. From a seam in a curtain of black winter hemlocks, 11 wild turkeys, blacker even than the trees, file straight to the seep, clucking softly, purring, making contented flock talk. As each black bird emerges from the shadows into an aisle of red sunlight their rich feathers ignite into prisms of metallic colors then regain the solemn black cloak as they enter shadow again.

They gather at the seep, talking louder as they rake and fling back soggy clots of leaves while nipping fern tips, grasses, buds, roots, anything edible. In the sun-washed seep, the colorful, noisy flock is like a festive, exotic caravan at an oasis come to feed and water after a long journey in a desert of snow. Suddenly, many heads telescope up, and all is quiet. In a few seconds the birds move back into the hemlocks and I wait to see if something else will arrive at the seep, but nothing appears. I walk down and look around at the tracks overlapped like hundreds of crosshatch strokes in an ink drawing.

Back at the studio I get an idea. I take a turkey quill, slice the tip into three toes like a turkey's foot and splay them outwards. The accompanying drawing shows an overhead view of the seep, the tracks drawn rapidly and easily with my turkey track pen.



MARCH IS usually considered the odd month of the year, being neither winter or spring, but I think in these times of warmer winters that February has shifted into that niche. An odd month it is, with the least number of days, and holidays as disparate as can be to honor groundhogs, celebrate presidents and express the vagaries of the heart. February is indeed the odd stone in the wall of the year and is the best time to shrug off cabin fever by heading for the farthest reaches of the woods. Once there, the static dogma of winter's script may be replaced with the inspiring doctrine of the season to come. The year is richer when we trespass beyond the boundaries of winter, seeking spring in the rarefied air of higher ground.





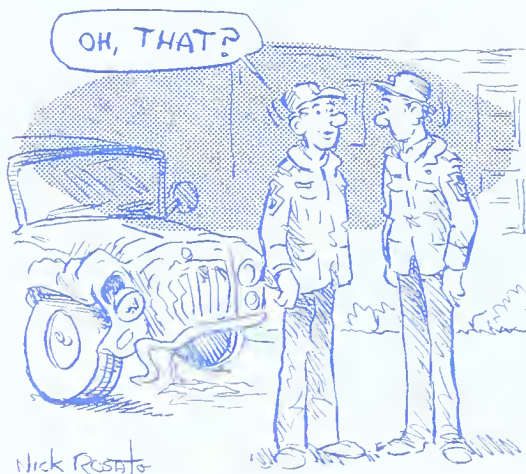
FIELD NOTES



Screeching Halt

BEDFORD — We were using a deer decoy to catch roadhunters near the Maryland border on the opening day of Maryland's deer season when two hunters shot at the decoy from their truck. After realizing that they had shot at a fake they tried to make a fast getaway, but their ATV rolled out of the bed of the truck and they had no choice but to stop.

— WCO DANIEL S. YAHNER, EVERETT



"Do as I Say, Not as I Do"

TRAINING SCHOOL — For three weeks my field training officer was constantly reminding me to watch out for all the deer on the roads. The one night I wasn't there to drive, guess what happened? Sorry, Rich, you should have taken your own advice.

— TRAINEE R. E. BIMBER, HARRISBURG

Bunnies Galore

FRANKLIN — I checked five nonresident hunters who come here every year just to hunt rabbits. They told me that cottontails are much more abundant here than in their state. It must be true because the hunters had 18 rabbits.

— WCO KEVIN L. MOUNTZ, ST. THOMAS

Generous Donation

The Blair County Conservation Officer's Association funded aircraft patrols last fall, and Deputy Steve Mighells volunteered his time to fly. As a result, several game law violators were spotted and apprehended, and Steve and Deputy John Miller spotted a fire that a group of individuals had started on game lands at a time when the dry conditions made even a small fire extremely dangerous. The officers in the air directed ground units to the fire, which was then contained.

— LMO STEPHEN A. KLEINER, ALTOONA

Duel in Tamaqua

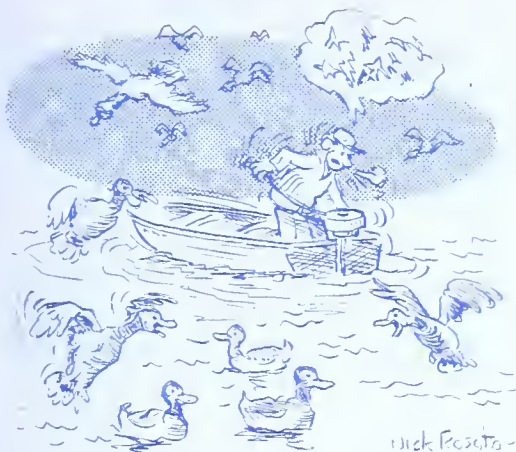
SCHUYLKILL — Deputy Charles Haldeman responded to a call about a confused deer in Tamaqua that was jumping from backyard to backyard of some homes. Charles picked up a stick as he and the local police attempted to drive the buck out of town. Suddenly, the buck turned, lowered its head and charged the deputy. Using the stick, both "bucks" locked "horns." After a brief struggle, the buck realized Charlie was not a rival deer and got out of town.

— WCO JOHN DENCHAK, GORDON

Streetlights

TRAINING SCHOOL — From the big city, it's taking me a while to adjust to the country. There aren't many streetlights or traffic lights in Bedford County, and many of the roads are dirt or gravel. While on field training assignment, I mentioned to a 6-year-old boy how dark it was at night, and that in Philadelphia it was light 24 hours a day. "You don't turn back the clocks?" the youngster asked.

— TRAINEE JERROLD W. CZSECH JR.,
HARRISBURG



Bad Luck or No Luck?

BERKS — I was watching a duck hunter at Blue Marsh Lake putting out his decoys when, as he turned the boat to return to his blind, his outboard motor stalled. As he toiled over the motor, 10 mallards circled his spread then landed among his decoys.

— WCO ROBERT L. PRALL, READING

Take Note for Next Year

SNYDER — On the buck season opener I checked many successful hunters, but only about half of them had their deer tagged. All big game must be tagged immediately after harvesting and before the animal is moved.

— WCO STEVEN BERNARDI, PENNS CREEK

Lost What He Didn't Deserve

FAYETTE — Greene County Deputy John Riley was contacted by a man whose father had found a carcass of a ringneck pheasant that had been discarded in a field. When the man examined the bird he found that only the breast meat had been removed. Looking at the legs the man noticed that there were two bands attached. The bird had been banded as part of our pheasant harvest rate study. Now, to the hunter who was too lazy to properly take care of the carcass, your laziness cost you. To the hunter who found the bird and turned in the band, enjoy your \$400.

— WCO STANLEY W. NORRIS, FAIRCHANCE

One Man's Junk is Another's Treasure

Game Lands Maintenance Supervisor Gerald Magee and his crew spent a considerable amount of time hauling old washing machines and freezers that had been dumped over a bank on game lands up to the parking lot. That night, before the junk could be hauled away, someone stole it.

— LMO STEVEN M. SPANGLER, EAST BERLIN

Strange but True

TRAINING SCHOOL — WCO Jack Lucas and I were stranded when our vehicle broke down 30 miles from a conference we were to attend. A man stopped and asked if he could be of some assistance. Jack jokingly said, "Only if you have a spare vehicle laying around." He did. A 1998 red Cadillac and he gave us the keys! "If this doesn't get you there I have a Rolls Royce available," he said.

— TRAINEE ROSE LUCIANE, HARRISBURG



Can't Take the City Out of Him

TRAINING SCHOOL — While on field training assignment, my classmate from Philadelphia thought a farmer in a field was having trouble with his machinery, because his tractor was spilling oil over the ground. He later learned that the "oil" was top grade liquid holstein organics.

— TRAINEE THOMAS D. SWIECH, HARRISBURG

Third Time's a Charm

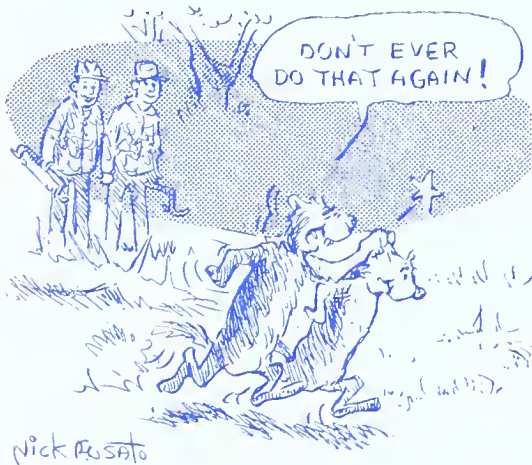
PERRY — Nearly two years ago I wrote a Field Note about three individuals who were cited twice in the same day for having loaded firearms in their vehicle. This year I checked them again and am happy to say they checked out fine.

— WCO JIM BROWN, LOYSVILLE

Thanks, Folks

CLARION — On the opening day of buck season, because of the dry weather, a forest fire got started on SGL 74. Due to the excellent work of the local volunteer firemen and other volunteers from Corsica, Strattanville and Millcreek townships, it was brought under control.

— WCO ALAN C. SCOTT, NEW BETHLEHEM



Cover Some Ground

WYOMING — Dale Mazannti and Mike Benz were archery hunting in Lemon Township when they spotted two fishers in a nearby tree. One fisher quickly descended the tree and began loping toward them. After approaching within 10 feet the other fisher rocketed to the ground and scolded its mate by chattering frantically, then both were gone in a flash. Fishers were reintroduced to Pennsylvania several years ago, and these two were 25 miles from their release site on Dutch Mountain.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Plenty Around

The Sunday after bear season I noticed a bear with four cubs.

— LMO JOHN C. SHUTKUFSKI, DAMASCUS

Close Shave

A large doe killed by accident during buck season and turned in by a hunter had both of its ears cleanly cut off just above the head. The wounds had healed and probably were caused by a mower when the doe was a fawn.

— WES RICHARD T. CRAMER, TIONESTA

Healthy Herd

ERIE — By the close of the early archery season, there were 170 entries in the buck contest held at Edinboro Outdoors. The average field-dressed weight of deer entered was 145 pounds, the heaviest weighed 198. I guess the mild winter of 1997-98, and the good food supply made the difference.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Wanted: Dead or Alive

Upon returning from a successful hunt a man here showed his 5-year-old daughter his pheasant. When she noticed the \$25 reward band on the bird's leg she looked puzzled and asked, "But what did it do wrong, Daddy?"

— LMO JAMES DENIKER, SANDY LAKE

Harmonious Outcome

SULLIVAN — A music professor from Mansfield University was driving to a concert when he was forced to stop for some young raccoons crossing the road. To his amazement, the animals took refuge in the wheel well of his Jeep. Fortunately, forest ranger Brian Valencik was driving by at the time, and after several unsuccessful attempts at removing the critters, he contacted me. Grabbing my welding gloves a "concerto" of growling and bawling soon filled the air, as one by one, the frightened animals were removed and released nearby.

— WCO SCOTT J. LOROW, MUNCY VALLEY



Takin' Some Lumps

CLINTON — While interviewing a man he muttered that his wife had griped about him spending so much money on a new rifle. I'm glad I wasn't around when he told her how much his fine was for killing a bear out of season over a baited site with that rifle.

— WCO KENNETH J. PACKARD, MILL HALL

Good Fakes

MONROE — Waterways Conservation Officer Clyde Warner checked a waterfowl hunter at Brady's Lake who told him a bald eagle had swooped out of the sky and snatched one of his decoys. Clyde, was skeptical until the hunter produced a decoy with talon marks.

— WCO RANDY L. SHOUP, LONG POND

Job Well Done

In 1995 the Game Commission celebrated its centennial. It was also the year we embarked on the quest for a much needed license fee increase, which was finally passed in 1998. During those three years the Commission has taken much criticism, with the brunt of it directed at WCOs and deputies. A sincere thank you is in order to all of these dedicated individuals. It wasn't easy 100 years ago and it won't be easy in the future, but these men and women do make a difference.

— IES DAN MARKS, MONTAUSVILLE

Rambunctious

BRADFORD — Trainee Steve Leien-decker and I walked in to where a man was hunting from a treestand over bait, and I told Steve to make his first arrest. As we approached the stand the suspect tried to hide by standing still and very erect. Steve yelled, "State officer, come down out of that tree." Now, I don't know if it startled the hunter, but Steve's booming voice sure scared me. Steve later told me that he had been waiting a long time to say those words.

— WCO WILLIAM A. BOWER, TROY

Small World

TRAINING SCHOOL — My field training assignments took me to Troy, Dallas, Denver, Dover, Moscow and East Berlin. Imagine, all these places and I never left Pennsylvania.

— TRAINEE BARRY A. LEONARD, HARRISBURG

Exposure

LYCOMING — As a field training officer for WCO trainees my job is to expose the new recruits to as many experiences as possible. While conducting an investigation, trainee Rose Luciane and I knocked on the door of a witness to a violation. The man came out onto his porch wearing little more than his birthday suit and began telling us what he had seen. After a minute or two he realized that we do hire female officers and made a hasty retreat back into the house.

— WCO TERRY D. WILLS, WILLIAMSPORT

Matching Pair?

ALLEGHENY — Wildlife pest control agent Joel Reiber was trapping nuisance muskrats on a golf course pond when he caught a large female and noticed it had been carrying something unusual. He has caught muskrats with ears of corn, sticks, oysters and weeds, but this one was carrying a sock. Maybe that's why I often only get one sock back from a pair in the wash.

— WCO JACK A. LUCAS, PITTSBURGH

Mother Nature's Foolin'

BRADFORD — While waiting for dawn on the first day of buck season, the unseasonably warm temperatures forced my deputy and me outside my truck. Imagine our surprise when we heard a spring peeper announce the coming day. On the second day we noticed many trees with buds ready to burst.

— WCO RICHARD P. LARNERD,
WARREN CENTER



Ring-Necked Duck?

BERKS — While stocking pheasants last fall, Deputy Duke Hacker and I noticed a bird swimming towards us about 60 yards from the shore at Lake Ontelaunee. Something didn't look right about this "duck," though. When it got closer, we were amazed to see it was a pheasant.

— WCO CHUCK LINCOLN, LEESPORT

Bad Image

TRAINING SCHOOL—WCO Bill Bower and I watched a man in a vehicle pull up within range of a ringneck as it fed along a road on a game lands here and with a handgun shoot the bird from the car. This individual paid a stiff penalty, but I wonder how often this type of thing happens when we're not around. This behavior creates a poor image with the public, so report these violations to your region office.

— TRAINEE STEPHEN A. LEIENDECKER,
HARRISBURG

You'll Be Missed

This is my last Field Note. After more than 33 years of service, I'm retiring. Over the years I've written many, from ground-hogs to computers, and I know *Game News* readers have read them because of the many comments and letters I've received from readers. I would like to thank the citizens of this commonwealth for the career opportunity I had. Working for wildlife and their habitats has never been a job for me, but a wonderful career and a way of life. I hope I've made a difference.

— LMO RICHARD B. BELDING, WAYNESBURG

Unusual Season

HUNTINGDON — Patrolling with my windows down and swatting mosquitoes, I had to keep reminding myself that it was the first day of buck season.

— WCO JOHN B. ROLLER, HUNTINGDON

Seized the Opportunity

TRAINING SCHOOL — Last fall Steve Kukus requested a replacement tag because the turkey he had killed had a prior injury that made the meat inedible. He told me that he didn't have much time to hunt, but was going out immediately after receiving the new tag. Two hours later Steve called to say that he had bagged a 20-pound gobbler with an 11-inch beard.

— TRAINEE RANDY W. PILARCIK, HARRISBURG

Too Big to Handle

ARMSTRONG — Deputy Matt Pfeil and I were sitting for several hours on a clear November night in an area where jacklighting had been occurring. Matt and I noticed an airplane flying low over our location, and then the plane turned on its large landing light as it approached the airport. It was 1 o'clock in the morning, so I said to Matt, "We ought to cite that plane for spotting after 11 o'clock." Without hesitating Matt replied, "You stop him and I'll write the citation."

— WCO BARRY J. SETH, WORTHINGTON

Record bear harvest set

HUNTERS SHOT an unprecedented 2,578 black bears during the 3-day season held Thanksgiving week, based on preliminary harvest information.

The previous harvest high was set in 1989 when hunters, aided by a tracking snow and an abundance of fall foods, shot 2,220 bears. The 1997 bear harvest totaled 2,110, now the state's fourth best harvest. Bear harvest figures will be confirmed early this year.

PGC biologist Gary Alt believed the harvest, which was spread over 49 counties, was the product of several contributing factors. "Mild weather, as well as a large and widespread acorn crop were significant factors," he explained. "Our huge bear population and the convenience of over-the-counter sales of bear licenses from issuing agents statewide were also contributing factors."

"Drought conditions played a significant role in the northeastern counties, where swamp water levels dropped, increasing hunter access to places bears typically find refuge in hunting season," Alt said. "The Northeast Region's bear harvest increased by

more than 70 percent from 1997 to '98. There was also a tremendous increase in the southcentral region, where the harvest almost doubled from 1997 to '98."

Two counties posted harvests in excess of 200 bears, marking the first time counties have reached the 200 plateau. Lycoming County led the state with 234 bears, followed by Clinton County with 225.

Seven other counties recorded harvests of more than 100. They are Pike, 157; Monroe, 135; Centre, 126; McKean, 114; Tioga, 112; Clearfield, 107; and Wayne, 104. Potter County, which led the state last year with a bear harvest of 175, dropped to 88.

The preliminary harvest by region was Northcentral, 1,192 (1,104 in 1997); Northeast, 759 (440); Southwest, 201 (169); Northwest, 198 (258); Southcentral, 172 (87); and Southeast, 56 (52). The Northwest was the only region documenting a harvest decline.

Preliminary county harvest statistics for the season, including 1997's actual harvest statistics in parentheses, are:

Northwest Region — Warren, 59 (30); Forest, 52 (72); Venango, 36 (66); Jefferson, 31 (47); Clarion, 13; (34); Butler, 4 (2); Crawford, 2 (5); and Mercer, 1 (1); Erie 0 (1).

Southwest Region — Somerset, 63 (69); Westmoreland, 53 (27); Cambria, 25 (18); Indiana, 22 (30); Fayette, 20 (12); and Armstrong, 18 (13).

Northcentral Region — Lycoming, 234 (172); Clinton, 225 (168); Centre, 126 (113); McKean, 114 (121); Tioga, 112 (122); Clearfield, 107 (110); Potter, 88 (175); Cameron, 75 (36); Elk, 66 (64); and Union, 45 (23).

Southcentral Region — Huntingdon, 65 (30); Bedford, 36 (13); Blair, 34

(19); Mifflin, 23 (15); Juniata, 6 (0); Fulton, 5 (2); and Snyder, 3 (7); Franklin, 0 (1).

Northeast Region — Pike, 157 (82); Monroe, 135 (66); Wayne, 104 (57); Luzerne, 76 (53); Carbon, 71 (30); Sullivan, 53 (43); Columbia, 42 (18); Bradford, 35 (35); Lackawanna, 33 (22); Wyoming, 33 (15); Susquehanna, 14 (18); Northumberland, 5 (1); and Montour, 1 (0).

Southeast Region — Schuylkill, 34 (19); Dauphin, 6 (9); Lebanon, 6 (9); Northampton, 6 (3); and Berks, 4 (7); Lehigh, 0 (5).

Many owed thanks for supporting license increase legislation

THE ENTIRE Game Commission, including all full-time employees and our many volunteers, offer sincere thanks to everyone who supported recent legislation raising hunting license fees.

House Bill 1994, as amended in the Senate, better known as the "hunting license bill," passed the House by a vote of 126-75 after winning approval in the Senate, 43-5. Governor Tom Ridge signed the bill into law on December 21. It will take effect on July 1, 1999.

The bill will provide about \$10.8 million in new revenues. This will allow the agency to once again purchase lands to add to the State Game Lands system, fill vacant positions, replace outdated equipment, allow long overdue building improvements and maintenance, and fund important wildlife research.

Key to bringing the funding package together was the work of the Coalition of Sportsmen's Clubs who united in a common cause. Organized sportsmen's groups throughout the state supported the initiative as did many individuals.

Thanks must also go out to legislators, especially the chairmen and members of the Senate and House Game and Fisheries Committees, who stayed the course for more than three

years in this effort to increase license fees.

In addition to fee increases, the bill includes provisions that eliminate the field acknowledgement of guilt (except in Philadelphia County and for nonresidents) for individuals who violate the Game and Wildlife Code; limits the issuance of citations to full-time officers in most cases; mandates that \$3 from each hunting license be used for natural propagation of game; and mandates a program for accountability and management of complaints.

License fees approved by the General Assembly include resident adult hunting or furtaking, \$19 (currently \$12); nonresident adult hunting, \$100 (\$80); junior resident hunting, \$5 (no change); junior combination including furtaker, archery and muzzleloader, \$8; senior resident hunting, \$12 (\$10); senior resident lifetime combination hunting, furtaking, archery and muzzleloader, \$100; resident archery, \$15 (\$5); nonresident archery, \$25 (\$5); resident muzzleloader, \$10 (\$5); nonresident muzzleloader, \$20 (\$5); resident antlerless, \$5 (no change); nonresident antlerless, \$25 (\$5); resident bear, \$15, (\$10); and nonresident bear, \$35 (\$25). In all cases, the issuing agent's fee for all licenses will be \$1, an increase from 75 cents.

Weaver wins state waterfowl art contest 2nd time



STAMPS and fine art prints of Clark Weaver's ring-necked duck painting will be available soon. Money from the sales of stamps and prints are used for waterfowl management and education purposes.

CLARK M. WEAVER'S painting of a pair of ring-necked ducks resting on the mirror-like surface of a marsh pond will serve as Pennsylvania's 1999 voluntary waterfowl stamp and fine art print design. Weaver's work was selected from a field of 26 entries at the state's annual waterfowl art contest held in September at the Pymatuning Waterfowl Expo in Linesville.

A student at Edinboro University, Weaver is a winner for the second time in the state contest. His acrylic painting of a pair of hooded mergansers was selected as Pennsylvania's 1997 voluntary waterfowl fine art print. He was 19 at the time.

A graduate of Central Dauphin High School, Harrisburg, Weaver

twice won (1994, '96) both state and federal Junior Duck Stamp Design contests. He's a protégé of long-time friend Gerald W. Putt of Boiling Springs. Putt is the only three-time winner of the Game Commission-sponsored fine art contest, completing his "hat trick" in 1998 and also taking top honors in 1991 and 1996.

Weaver joins Tom Hirata (1990 & '94) as a two-time winner of the Pennsylvania contest. The late Ned Smith was commissioned to paint the 1983 and 1985 duck stamp prints.

The 1999 stamps and fine art prints will be available soon. Monies from the stamps and prints are used for waterfowl management and education purposes.

Deer management open house events scheduled

TO BETTER involve hunters, farmers, foresters and all others interested in Pennsylvania's deer management program, the Game Commission is hosting six open houses, one in each region.

The open house format will not be any sort of formal presentation. Instead, it is a chance for attendees to offer their opinions and ideas on how deer should be managed here.

Each open house will be an interactive event centered around several stations staffed by agency employees. Each station will include a display focusing on issues and possible solutions to particular problems. Concurrent antlered and antlerless deer seasons, check stations, use of advisory groups to set antlerless license allocations, and longer antlerless deer seasons are some of the topics that will be featured at the stations.

Each open house will run for two days, from 4 p.m. to 10 p.m. the first day, 9 a.m. to 10 p.m. the second. The schedule is: **Southwest Region**, January 22 and 23, National Guard Ar-

mory, Ligonier; **Southcentral Region**, January 27 and 28, Old Bedford Village, Bedford; **Northcentral Region**, February 6 and 7, Dunnstown Fire Hall; **Northwest Region**, February 12 and 13, Rocky Grove Fire Hall, near Franklin; **Southeast Region**, February 19 and 20, Middle Creek Wildlife Management Area visitors center, Kleinfeltersville; and **Northeast Region**, March 13 and 14, National Guard Armory, Wilkes-Barre. (For directions to any particular site, contact the region office.)

People will be free to just walk through and take a look at the displays, but it is hoped that all those who attend will want to discuss the issues with the agency personnel on hand.

In no other time in the agency's history have citizens had an opportunity to play such an integral role in agency decisions. If you have more than just a casual interest in the hows and whys of Pennsylvania's deer management program, attend one of these open houses. Your input is truly wanted.

WILD Pennsylvania

WILD Pennsylvania produced by WPSX at University Park, in cooperation with the Game Commission, has been so well received that PBS stations across the state are broadcasting the 13-part series again. Black bears, eagle and peregrine falcon reintroductions,

the Becoming an Outdoors-Woman program, wildlife artists and backyard wildlife are just some of the many wildlife related programs covered in this television series. Check local listings for when WILD Pennsylvania is being shown in your area.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

Committee to review deputy WCO program

PGC Executive Director Don Madl has named a committee to review the role deputy wildlife conservation officers play in service to the agency and the citizens of Pennsylvania.

The committee is charged with reviewing all areas of the deputy program and to bring forward recommendations designed to enhance public perception; develop an increased sense of public awareness and human relations

skills; and increase the understanding of constitutional issues and concerns for individual rights.

"We recognize the value of our dedicated force of deputy wildlife conservation officers," said Madl. "Therefore, it's imperative that we strive to correct any deficiencies, either real or perceived, in order to provide an even higher quality of service to the citizens of this commonwealth."

Scouts help shooters

AS AN EAGLE SCOUT project, Carl Long got together fellow scouts from Troop 16 in Berwick, and other volunteers, and repaired a shooting pavilion and did other work on SGL 58, in Columbia County.

Enduring the heat of August, the group put a new roof on an existing shooting pavilion, and also built a new shooting pavilion over the handgun range and the shooting bench for physically challenged shooters.

In all, some 20 people helped make this public shooting range a more comfortable place to shoot.



Keith Sanford

LEFT TO RIGHT, are Tom Andrews (Carl's uncle), Dave Sanford, Dan Long, Carl's dad) Carl, and Fred Long (Carl's grandfather).

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187	Southcentral — 814-643-1831
Southwest — 724-238-9523	Northeast — 717-675-1143
Northcentral — 717-398-4744	Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

Game Commission Sale Items

Books & Videos

Quantity		Price
_____	100 Years of Wildlife Conservation by Joe Kosack	\$12.26
_____	PA Wildlife, A Viewer's Guide by Kathy & Hal Korber	12.26
_____	Birds of Pennsylvania by James & Lillian Wakeley	12.26
_____	Mammals of Pennsylvania, by J. Kenneth Doult, et al.	9.43
_____	Pennsylvania Big Game Records, 1965-1986	9.43
_____	Gone for the Day by Ned Smith	5.66
_____	Endangered & Threatened Species of Pennsylvania	5.66
_____	Pennsylvania Game Cookbook	4.71
_____	Woodcrafting for Wildlife	5.66
_____	Woodlands & Wildlife	3.77
_____	Wetlands & Wildlife	3.77
_____	"On the Trail of Pennsylvania's Black Bears" video	29.24
_____	"Pennsylvania Whitetails: Living With Change" video	29.24

Working Together for Wildlife

Art Prints — \$125**

_____	1999 "Maternal Instincts" by Laura Mark-Finberg		
_____	1998 "Misty Morning Rendezvous" by Marie Girio Brummett	WTFW Patches	
_____	1997 "Gray Haven" by Laura Mark-Finberg	_____	1999 Raccoon \$4.71
_____	1996 "Peregrine Hideaway" by Stephen Leed	_____	1997 Gray Fox 4.71
_____	1993 "Bear Run" by Bob Sopchick		
_____	1992 "Spring Strut" by Taylor Oughton		
_____	1990 "Coming Home" by Gerald Putt		
_____	1989 "Last Glance" by Jack Paluh		
_____	1988 "Snowy Egret" by John Pritko		
_____	1986 "Country Lane Kestrel" by Bob Sopchick		

WTFW patch display case

_____ Holds 15 patches — \$125
plus \$15 s&h

Charts & Binders

_____	Set No. 1 (birds — 4 charts) 20" x 30"	\$9.43
_____	Set No. 2 (birds & mammals — 4 charts) 20"x 30"	9.43
_____	Set No. 3 (all 8 charts) 11" x 14"	7.54
_____	Game News Binders	5.66

Waterfowl Management Stamps & Prints (\$5.50 & \$135, write for additional details)

_____	1998 — Wood Ducks by Gerald Putt
_____	1997 — Hooded Mergansers by Clark Weaver
_____	1996 — Black Ducks by Gerald Putt
_____	1995 — Buffleheads by Mark Bray

SPORT Items

_____	SPORT Hat (one size fits all)	\$5.00*
_____	Turkey Alert Band	2.83
_____	SPORT Patch	.94
_____	Deer Weight Tape	.94

Miscellaneous Prints and Patches

_____	"Fall Birds" by Stephen Leed	\$125.00**
_____	"Spring Birds" by Stephen Leed	125.00**
_____	"We Need Wildlife" Cardinal (male)	4.71
_____	"We Need Wildlife" Cardinal (female)	4.71
_____	Pymatuning Wildlife Management Area	1.88
_____	Middle Creek Wildlife Management Area	1.88

Mail orders along with remittance
(do not send cash) to:

PA Game Commission

Dept. MS

2001 Elmerton Ave.

Harrisburg, PA 17110-9797

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sales tax. Checks should be made
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Commission. U.S. currency only.

For faster service, call
1-888-888-3459. Visa and
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* — nontaxable item

**Art Prints: Add \$97.50 for framing;
for s&h add \$15 for each framed piece,
\$7.50 for unframed prints.

Another View

By Linda Steiner

When all is said and done, deer hunting comes down to pitting our smarts against our quarry's eyes, ears and nose. The playing field is about equal with . . .

Sense vs. Sense

I HEARD a great deer hunting story last night. The caller told me about a successful buck hunt:

He was sitting against a tree on opening day when suddenly three deer appeared, close. Deer shouldn't materialize like that before a watchful hunter, but we all know they do. The deer walked right at him and he froze.

This guy can freeze, still as a rock. He says he even half-closed his eyes and looked down, watching the deer on the periphery, so as not to make eye contact with them. This might not seem necessary and may even sound silly, unless you've tried it with game that has gotten too near and is star-

ing at you. Averting your eyes is a bowhunter's secret tactic.

Instead of veering off, the lead doe continued to walk toward him. "I could have reached out and touched her with a long stick," said the caller. The deer inspected the inanimate object against the tree for a bit, then resumed picking up acorns and meandered away. The second doe, a yearling, stared at the hunter, then looked to the first doe for guidance, then turned back to the hunter again. If a deer could shrug, the little doe did, and also fed by leisurely.

As to the buck, the one deer in the group the hunter could legally shoot, it was farther away, say about 20 feet. The buck zeroed in on the hunter, but only as something that didn't look quite right. "If you can say a deer looked bewildered, this one sure did," said my friend. "I swear its eyes got wider. And its head went around in a circle."

I laughed. I was thinking about the movie "The Exorcist." "No, not like that," he said. "The buck just stood there and swung his head way to one side, then way to the other, trying to make out what I was. Guess he was trying to see me from different angles."

A DEER may hear you break a twig or see your outline and not bolt, but if it catches your scent, it's gone.

Bob Steiner



That deer, too, finally ignored the unmoving shape and took a couple of steps. Those steps put him on the other side of a big tree, and for a brief moment the hunter was hidden from view. The “rock” snapped into action and the gun met the hunter’s shoulder. The does had fed past and didn’t see the motion. The buck stepped out from the tree and stopped.

“He never knew I was there, never knew what hit him,” said the caller. A shot through the lungs and shoulders dropped the 3-point less than 10 yards away.

Sense vs. sense. That comes as close as anything to describing what happened that opening day to my friend. And it makes a good explanation of what goes on between two very different species — humans and game — during a hunt.

On the one side, wildlife has all the talents that superior senses can give it. Like Little Red Riding Hood said to the wolf, “What big eyes you have!” “The better to see you with,” was the wolf’s answer. The same went for its ears and its nose (and its teeth). Red was quick to recognize the individual in the bed, dressed in a nightcap, had animal attributes that her grandmother, or anyone else, did not have.

Deer have big ears, too. Their external ears are huge sound-catchers, sometimes described as radar dishes, but more like the

ear trumpets that were once used by those with failing hearing. With our flat-to-the-head external ears, what sort of sound gathering can we hope to do, in contrast to a deer? Can we even imagine what it’s like to have a whitetail’s superlative sense of hearing?

As to the sense of smell, people cannot possibly experience what it must be like to have the immense olfactory sensitivity of a deer. Just look at our face compared to theirs, and how short our nose is. If you’ve examined a deer’s skull and looked up the nasal passages, you’ve been awed by the complicated structure. Humans hardly pay attention to their sense of smell, unless the odor is overwhelmingly pleasant or putrid. And even then we might not be able to make instant identification. I’m convinced that to deer, smell is the primary sense used for identifying anything. A deer may have heard you break a twig, may see your outline, but it may not bolt. But if it simply gets downwind of you and has gotten a snout full, it’s gone.

As to their big eyes, there is much debate about whether deer see color or just discern brightness. Eyesight is said to be their weakest sense, but don’t let that make you complacent as a hunter. Whatever the sharpness of their vision, I know deer are quick to spot the slightest movement. After all, they have a whole lifetime in the woods watching widely with those huge peepers.

Deer are not smart, though they sometimes seem so because their senses are so keen. They are well fitted to detect a presence in their surroundings that could mean death. Noticing motion among stolid tree trunks comes to whitetails, I’m sure, as a talent from the species’ past, when wolves and mountain lions were the primary predators lurking in the forest. Their wide-

Bob Steiner



WE’LL LOSE every time when trying to match our senses against those of a deer. Brainpower is our chief tool in overcoming a deer’s superior senses.

set eyes, long nose and big ears are marks of prey animals.

Though a deer's senses are far beyond ours, I know their use of them isn't perfect. Deer react fast and suspiciously to the snapped twig, but if they hear something they can't identify, that has no meaning to them, they're often curious or ignore the noise. One example is the human voice. To our mind, a deer ought to hightail it if it hears a person speaking. Words mean humans are near, which means run, we rationalize. But deer don't think that way, at least the ones I've encountered.

Several times this past buck season I talked to the deer. And they always stood and listened. Twice does ran to me and stopped short, staring. I spoke to them: "What are you doing here? Why don't you have antlers? Now shoo." I wasn't moving, just talking. In both instances the deer looked at me, cocking their ears a little, and actually seemed to relax at the sound. Maybe in their deer minds something that made noise couldn't be a predator. Maybe I was just a big, grumbling 'possum. I suspect that my human voice was out of their repertoire of identifiable noises, and so had no effect.

I think scent is the same way. Deer can pick up all the nuances of odor, but if it doesn't say trouble to them, they don't pay attention or just give a curious sniff. In the case of the hunter who called me that night, I'm sure the air must have been moving away from the deer, because they never got a compelling whiff of him. And they were never alarmed enough to circle him, to get downwind. I've been cautioned not to wear perfume or scented deodorant when hunting, but I doubt smells coming from me would mean as much to the deer as the underlying human aroma.

As for a deer's sense of sight sometimes betraying it, the neck maneuver my friend's buck did was typical. If he had moved, even stared it in the eyes and blinked, I believe the deer would have taken off. But by not moving, the hunter made it harder for the

deer to identify him. We've all seen deer stamp their front feet, even snort and take a jump or two, then stand and look back, to see if we have moved, if we are actually something to be afraid of.

I'm not sure if I'd have had my friend's self-control, patience, and calmness with the deer so close, especially on a buck that could fill my tag. But he put his mind to it, and he came out the winner.

That, in the end, is all the talent we have in this match between species. We have a brain, intelligence, reason — we have sense. I'm not even counting the intellectual ability that enabled mankind to produce high-powered rifles and smokeless gunpowder, or the ingenuity that can weave sheep wool into a warm coat or create synthetic polyester fibers as a comfy imitation of fleece. I'm talking about on-the-ground use of our wits in the pursuit of game. We can discount our puny senses of hearing, smell and eyesight — oh, all right, we see color and that's a plus for us. Brainpower is our chief tool, though.

In that night's hunting story, my friend chose a certain course of action, or rather delayed action. Knowing that his senses hadn't detected the deer until they were too near, and that he was exposed to their view, he remained still. He even had the good sense to avert his eyes from theirs. And he reasoned his best chance for a shot at such close quarters was to wait until the does went by and to move his gun only when he knew the buck couldn't see him. And it worked.

The deer's talents fell short in this case; the man's served him better. At other times, all our smarts don't keep the deer from bolting or from discovering us before we're aware of them, and melting back into the woods.

Hunting isn't about matching wits with wildlife, because they don't have anywhere near the wits we do. Hunting is more about sense vs. sense, and when both types of abilities are weighed, I suspect the scales rest about even. □



Realizing the suspect was within arm's reach — literally — I jumped back and unsnapped the thumb break on my holster.

Spine Chilling Encounter

OTHER LAW ENFORCEMENT officers have told me they wouldn't want my job because the people I deal with often have firearms. That may be true, but the vast majority of people I encounter aren't inclined to use them against me. But then I was involved in an incident during the 1997 buck season that forever changed the way I conduct an investigation.

Because it's unlawful to spotlight during the deer season, calls about spotlighting are few. On the last Thursday of buck season, though, I got such a call. I quickly mobilized two deputy units and we headed for the area, hoping to apprehend the culprit. Deputies Gary Park and Jerry Smith, two dedicated officers, were in their uniforms in minutes after my call. While they were on the way, I interviewed the witnesses. They described the vehicle and even gave me an approximate location of where the violators were heading. Gary and Jerry had just arrived when I pulled into the driveway of the suspects. The vehicle hood was still warm. A spotlight lay on the floor between the driver and passenger seats. This was definitely the place.

Feigning sleep, the registered owner of the truck rubbed his eyes and yawned as he denied doing any spotlighting. He and the passengers with him were just out for a ride he said. They knew spotlighting wasn't allowed during the season, and wouldn't think of doing such a thing. That the man had been drinking was obvious. Because the witnesses couldn't identify who was actually spotlighting — a key to prosecution — my deputies and I were forced to leave without filing any charges. The violator, however, was fully aware that he and his pals had barely escaped prosecution. Their brush with the law, we thought, would probably prevent them from doing that sort of thing anytime soon.

Thanking the two deputies, I bade them good night and started home. Within minutes of leaving I received a call on my radio. A dispatcher in the Towanda communications center wanted to know my location, and if I could meet with Joseph Bevacqua, Chief of the Rome/Orwell Police Department. Because it was approaching 10 p.m., I knew it wasn't for a social visit. Within 15 minutes I was sitting be-

side Joe, listening as he described an incident that he had been investigating when he heard me on the radio.

Responding to a call from a trailer park in Rome, Joe spoke to some people who had seen a car pull into an adjacent trailer lot. They said that three people got out, including a fellow named Rock, who Joe was familiar with, and removed something large from the trunk. The witnesses thought it was a deer. The suspects took a gun into the house and took off again, vowing to kill another deer.

If we staked out the trailer, we could catch them when they returned. If there had been a deer in the trunk of that car, evidence would still be present. If they poached another deer, we'd catch them red-handed, literally. However, that was a lot of ifs. "If 'ifs' and 'ands' were pots and pans, the world would be a big kitchen," was a popular saying when I was a kid. I don't recall its origin, but it sure fit here.

After hiding my truck, I hopped in with Joe and we went for a look around the suspect's trailer. Ruts in the frozen mud told where the car usually sat. There was a skiff of snow on the ground, and tracks that suggested there had been some recent activity at the residence. A good knock on the door brought no response. Apparently, no one was home. The powerful beam of my flashlight illuminated the yard, and it didn't take long for me to discover the lack of blood in the snow. If the suspects had killed a deer, they certainly didn't unload it here.

The witnesses were convinced they saw a deer being removed from the trunk. They had to be mistaken, though. The lack of sign confirmed it. Joe and I agreed to wait for the poachers to return. At 11:30 p.m.

we decided to call it quits. They hadn't come back and I knew that I could check in the morning. If the car was there, the necessary evidence would be as well. With that, we left.

I returned the next morning, and sure enough, a car matching the description sat in the driveway. I pulled in behind it and radioed the region office in Dallas to let them know where I was. I also asked them to run the license plate because the registration appeared to be expired. I approached the trunk of the car with much anticipation. Deer hair and rumen adorned the trunk and back bumper, and bloody fingerprints were evident. Sure, these things could have come from a legally taken buck, but I didn't think so. The back end sagged noticeably, and I was sure the dead deer was still inside. I gave the front door a good pounding and from inside came a muffled, "Who's there?"

"State officer. Come to the door please."

I could hear a lot of shuffling around and sounds as if someone was running to the back of the trailer. A woman finally came to the door and opened it a crack.

"Is this your car?" I asked.

"It's my mom's but I use it," the woman responded as she slipped outside and quickly closed the door. I asked if Rock was there and she responded that he wasn't and that she hadn't seen him all morning. She agreed to open the trunk after I explained that I had information suggesting the car had been used in a poaching incident the night before.

Assuring me that she'd be right back, the woman went back inside to get the keys. Taking the opportunity to do so, I called the county communications center and asked them to page Chief Bevacqua. I

When I knocked on the door of the suspect's residence I could hear a lot of shuffling around and sounds as if someone was running to the back of the home.

briefly explained that I was back at the scene and was going to need his assistance. The dispatcher soon informed me that the chief was on his way.

I looked at my watch. The woman had been gone about 15 minutes. That was an inordinate amount of time to retrieve a set of car keys. I knocked on the door again. No answer. I gave it another good pounding and it was opened immediately. Breathlessly, she explained that she had trouble finding the keys.

With trembling fingers the woman opened the trunk. Inside was a small headless deer that had been field-dressed and had a bullet hole in the shoulder. It was a fawn, and although it was buck season, this deer would not have been capable of producing legal antlers. The inside of the trunk was awash in blood and hair. The person who field-dressed the fawn must have been a mess when finished. The woman covered her gaping mouth and turned away. That she was shocked was obvious. "You'd better call your mother," I suggested. "I may

be seizing this car as evidence."

Before long Chief Bevacqua and the woman's mother arrived. With the mother's consent, I conducted a formal search of the small sedan. I found live rounds for a .222, some spent cases, and a hunting license belonging to Rock. Once finished, we all went inside, and Joe and I further explained what the ramifications were for Rock and his partners.

The two women insisted they didn't know where Rock was. The younger woman hadn't seen her boyfriend since the night before. Because Rock lived there for the most part, I felt the gun was probably still there somewhere and asked for a consent to search. She promptly gave it. She said that the only guns she knew of were in the bedroom. Asking her to accompany us, Joe and I started to search.

We scoured the bedroom. I was restricted in my search to places where a gun could be stashed. Because there are only so many places a rifle could be hidden, it didn't take long to finish going through the bedroom. A large walk-in closet adjoined the bedroom and then turned into a master bathroom before wrapping back around to the bedroom. I told Joe that I would search the closet if he would search the bathroom.

I opened the closet door and found it stuffed with clothing. They hung from hangers and were stuffed into garbage bags. The bags were piled on the floor under the hanging clothes. I remember thinking that it was a perfect place to conceal a gun, and I hoped I didn't have to haul all of those

I PULLED apart the hanging clothes and was stunned to see a leg and then a bare arm holding a cup stained with tobacco juice.



bags out to find it. I got down on my hands and knees and began shoving my arm into the crevices between the plastic bags. I pulled a few bags away and knelt low to look under the hanging clothes. It was dark; visibility was practically zero. I had to rely on my sense of touch. As I reached in to move a few more bags out of the way, I felt something solid. I moved my hand along its length and came to a right angle. I was puzzled because whatever it was, it seemed to be covered with cloth. I pulled apart the hanging clothes and was stunned to see a leg and then a bare arm holding a cup stained with tobacco juice.

I immediately jumped back as if bitten by a snake. In the instant it took me to realize that a person was hiding in there, I realized my safety was in jeopardy. I didn't know if this person had a gun or a knife. I quickly took cover behind the door to the bathroom and screamed at the person to show me his hands. He didn't move. I yelled for him to come out as I unsnapped the thumb break on my holster. I was drawing my service revolver when the man finally realized how serious things had become.

At hearing my yells, Joe came around the corner to see what was happening. The man crawled out of his hiding place and Joe said, "Hello, Rock."

I ushered Rock into the living room and

ordered him to sit on the couch. In the following 10 minutes I assured him and his girlfriend that he had come very close to serious bodily injury, and possibly death. I explained the concept of officer safety and what it means to me. Because he was stupefied at being discovered, or maybe he realized how close he came to being shot, whatever the reason, Rock sat in silence except to mumble an apology.

After the serious chat I had with Rock, he cooperated fully. By the time he was done talking, Rock implicated his accomplice and I recovered two more deer. In all, he and his buddy had killed two does and a nice buck that night. The only deer they kept was the small doe I had found in the trunk of the car.

While I tried not to show it, I was shaken up by what had happened. Rock had been home when I knocked on the door and his girlfriend helped to hide him while she claimed she was looking for the car keys. He heard everything that Joe and I discussed with the two women, and his anxiety level was climbing as I came closer and closer to his hiding spot. Had he wanted to, Rock could have killed me, with knife or gun, as I knelt in front of him. Even now, that causes a chill to run up and down my spine.

The next time someone says that my job is dangerous, I just may have to agree. □

Books in Brief

(Not available from the Game Commission.)

The Sultan of Spring, by Bob Saile, published by The Lyons Press, 31 West 21st Street, New York, NY 10010, 176 pages, \$22.95 plus \$4 shipping and handling. This book is a literary salute to the magic and mysticism of spring turkey hunting. The author takes the reader on a narrative adventure, laced with instructive insight, across the captivating haunts of the wild gobbler. Covering the country — from the swamps of Florida to the cedar and cactus dotted canyons of the Rocky Mountain West — *The Sultan of Spring* offers a host of hunting tales, personality profiles, and the story of the amazing comeback of the American wild turkey.

Lack of food in the North Country made the winter of 1997-98 one serious birders won't soon forget.

Superflight

LAST WINTER was the kind of winter birders dream of. Not only did we have a classic "irruptions of winter birds from the north but a superflight" in which all the highly irruptive finches — pine grosbeak, purple finch, common redpoll, hoary redpoll, pine siskin, evening grosbeak, red crossbill, and white-winged crossbill, as well as the red-breasted nuthatch — appeared somewhere in Pennsylvania.

Most exciting was the invasion of both

crossbill species, those birds with crossed bills that they use to wedge open cone scales and then lift seeds free with their tongues, eating as many as 3,000 conifer seeds a day. Previously, a red crossbill irruption had last occurred here in 1972-73 and a white-winged in 1981-82, but there had never been a year on record when both had appeared in large numbers. Add to that the glimpses of such rarities as pine grosbeaks and hoary redpolls by a few lucky people, plus the added bonus of all the other finch species familiar to most of us who feed birds, and the extraordinary winter took on all the trappings of a legend in

the making. In years to come, birders will speak with awe and longing of the fabulous winter of 1997-98.

The first hint that something big was afoot occurred on September 22, 1997, when a single white-winged crossbill was spotted at Hawk Mountain Sanctuary. This was followed on October 17 by a report of three white-winged crossbills at the DuBois reservoir. By November both red and white-winged crossbills were being reported in record numbers



throughout much of Pennsylvania. Their numbers increased steadily in December and early January.

By the time the invasion was over the following April, crossbills had been seen at 120 locations in 55 of Pennsylvania's 67 counties. Unfortunately, our county — Blair — was not one of them, because we didn't have the food crossbills prefer: the seeds of eastern hemlock cones. Even though our hemlocks had only a few cones, I spent many hours in the hollow, watching and listening hopefully for glimpses of crossbills. In the middle of January a sudden influx of crossbills occurred on Somerset County ridges, in Venango County, and, most notably, in Cook Forest State Park.

Cook Forest State Park, and Clarion County in general, recorded the highest counts of crossbills throughout the irruption. The park, with its large number of huge, old growth hemlocks, was a natural magnet for the crossbills. And luckily the hemlocks were loaded with cones. So were the old growth white pines, usually a secondary choice for crossbills when they irrupt. But, by and large, the crossbills ignored them and ate almost exclusively seeds from hemlock cones.

Paul M. Brown of Pittsburgh who spotted them on the Longfellow Trail first reported the red crossbills at the park on November 28. Brown called Margaret Buckwalter, the chief bird compiler for Clarion County. Two days later, Margaret's son, Ted, found at least 50 red crossbills high in the hemlocks on the same trail. A little more poking about produced red crossbills in Ridge Campground and near picnic tables along the Clarion River. As Margaret later wrote to me, "That was the beginning."

White-winged crossbills were first sighted on January 12 at the park, and after that it was difficult to tell them apart from the red crossbills as they all fed high in the hemlocks in mixed flocks. It was easier to see them when they flew from

place to place across open areas. Surprisingly, they even came to feeders in Clarion County. Friends of Margaret's had seven white-winged crossbills eating sunflower seeds from their tube feeder. Other folks observed them eating white pine cone seeds, black birch catkins and maple buds. Apparently, while the cone-laden hemlocks of Clarion County enticed the birds to stay, they did sample other food as well.

But why this incredible influx of birds that are quintessential North Country birds? Because across much of Canada the seed crop had failed. According to a letter from Ian Thompson of the Canadian Forest Service quoted in Paul Hess, Michael R. Leahy, and Robert M. Ross's excellent article "Pennsylvania's Crossbill Winter of 1997-98" in *Pennsylvania Birds* (January-March 1998), "There are no seed on any trees this year over the entire area from Manitoba across Ontario and Quebec. I have never seen such a bust year where all species were dormant simultaneously. In Algonquin Provincial Park, Ontario, Christmas Bird Count participants reported no crossbills at all compared to normal years when several thousand of both species are reported."

Anyone with a computer hooked to the Internet could keep up with the unprecedented winter finch invasion that occurred throughout most of the United States. The Cornell Lab of Ornithology/National Audubon web site, BirdSource, started tracking it in mid-November, after learning that all the winter finch species except hoary redpolls had been reported by diligent Ithaca, New York birders by October 26. As it turned out, those finches were moving on through because the New York seed crops had also failed.

"It became apparent early on that the 1997-98 invasion was going to be extraordinary," BirdSource project coordinator Steve Kelling, who developed the Winter Finch Survey, said. Fruit and berry loving pine grosbeaks showed up in huge numbers in Minnesota and New England where

wild fruit crops were abundant. In addition to Pennsylvania, large flocks of crossbills also found Eastern hemlock and white pine cone seeds in parts of New Jersey, Maryland and Washington State.

When I last logged on to BirdSource in late February, I discovered that red crossbills had appeared in central Florida by mid-February, white-winged crossbills in central Alabama in January, pine siskins in coastal Louisiana in December and central Texas in February, common redpolls in North Carolina in January, and evening grosbeaks in central Florida and Texas in February. Most of these southern bird sightings broke records for both numbers and species of these usually far north birds. For instance, a white-winged crossbill sighted in Tennessee was only the third ever seen in that state. Red-breasted nuthatches were equally surprising, appearing in unprecedented numbers as far south as central Texas.

Although we didn't have the more glamorous species on our mountain — the crossbills, pine grosbeaks, or hoary redpolls — we certainly experienced the greatest winter finch diversity ever last winter, both at our feeders and in the woods. On November 12, 20 evening grosbeaks appeared at our feeders. The following day they were joined by pine siskins.

"It looks like it is going to be a finch winter," I wrote happily in my journal. And indeed it was, even though the evening grosbeaks and pine siskins moved on by the end of the month, momentarily dampening my belief in a finch invasion.

But we did have and continued to have

huge numbers of American goldfinches, far more than I could ever remember. There were 60 at a time at our feeders, when five to 10 had previously been our highest count. And in the woods large flocks coursed back and forth overhead as I took my daily walk.

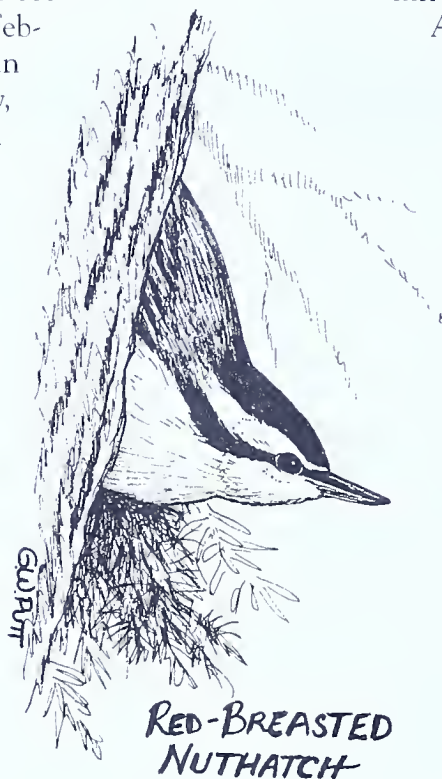
What were they eating and why were there so many? Our conifer cone crop might have failed, but our black birch catkin crop was mind-boggling.

And that was what they were eating. American goldfinches, like their close relatives, pine siskins and common redpolls, are nomadic in winter, going where the food is. All three species prefer birch and alder catkin seeds to other foods, but they are not adverse to supplementing those seeds with black oil sunflower seeds at feeders.

Still unaware of the general excitement in the birding world by late December, I nevertheless held out hope that those catkins

would bring in common redpolls and more pine siskins. And on a less than auspicious Christmas Bird Count day in late December my hope became a reality. My husband Bruce and I plodded through light snow for three miles, combing empty ravines and seeing few birds. But late in the morning, as we recrossed the Far Field, we were halted in our tracks by a chorus of birdcalls. A grove of black birches, loaded with catkins, was also loaded with at least 200 common redpolls.

We sat down on a log and watched for a long time as they wheeled back and forth over the treetops, then settled down to eat, first on one tree, then another, before the



**RED-BREASTED
NUTHATCH**

whole flock finally took off.

That was the real beginning of the finch invasion for me. Pine siskins also returned, although not in high numbers like the common redpolls. Most days both siskins and redpolls visited the feeders in small numbers (five to 10), along with hordes of goldfinches, but if I wanted to see all three species in the hundreds, I headed for black birch trees. Luckily they grow all over our mountain.

I spent many happy winter hours, on sunny days and overcast ones, sitting at the base of a nearby tree and watching them moving restlessly from catkin to catkin, chirping continually. One snowy day a mixed flock alternated eating catkins with eating snow from tree branches. Other days I encountered common redpoll flocks feeding alone as I had the day of the CBC.

The common redpolls and pine siskins remained on the mountain until mid-April and were joined for several days by more purple finches than usual. Then, just as the

finches headed north, I found my first red-breasted nuthatch on April 17. They reached a crescendo on May 7 when literally dozens landed on trees around me as I sat on Dogwood Knoll surrounded by hundreds of foraging yellow-rumped warblers. Apparently the red-breasted nuthatches that had spent their winter in the south were heading back north to breed.

I saw my last red-breasted nuthatch on May 13, effectively concluding my experience with the superflight of 1997-98. Of the nine official superflight bird species, I had seen five, a record for our mountain.

Although there is still some speculation in the ornithological world concerning the "why" of bird irruptions from the north, I am convinced that food supply controls irruptions. As I told my neighbor when he asked me where he could see redpolls and siskins, "Look for black birch trees, Charlie." Or, as birder Douglas Gross said about the crossbill invasion, "They came, they saw, they conifered!" □

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Today there are more treestand models on the market than ever before, and choosing one that's right for you can be difficult. Here's tips on . . .

Selecting a Treestand

FOR MOST bowhunters, probably no hunting accessory is more important than a treestand. Aside from archery tackle itself, it's a safe bet that treestands are responsible for the demise of more white-tails than any other piece of archery equipment. Hunters in treestands get deer close by keeping scent above those keen noses.

I learned the value of hunting above ground in the mid-'60s when I lived in New Jersey. Bowhunting every day after work, I saw plenty of deer sign but no deer. To compound matters, I hunted a relatively small patch of woods — about 40 acres — so seeing deer should have been easy. From droppings and other sign, I knew the deer were there, but it was clear by their absence that they were aware of my presence as well.

While scouting one Saturday morning, I found a large maple tree growing near a cornfield. About 10 feet above the ground two limbs thick enough for me to stand on grew tantalizing outward from the trunk. I piled some fieldstone against the trunk so I could reach the lowest limbs. From there, it was an easy climb to my new perch. Uncomfortable as I was, I had my first treestand and soon saw deer. I didn't get one that year, but I was happy enough in learning the value of hunting from trees.



SAFETY, quietness, comfort and weight are four factors hunters should consider before purchasing a portable treestand. Of the four, safety is the prime consideration.

The following year I moved to my present home just above the Susquehanna/Bradford county border. The region is primarily agricultural, and I obtained permission to hunt several dairy farms. My first

treestand was a crude affair consisting of a wide plank spanning two arm-thick limbs of a white pine tree. I still use the same tree, but now I erect a portable stand. My portable stand is safer and more comfortable than the original arrangement, and I can change locations whenever I need to.

By the mid-'70s about a dozen commercially made treestands were on the market, giving bowhunters the opportunity to place a stand almost anywhere deer could be expected to pass. As popular as these new stands were, they had their shortcomings. Some early models left a lot to be desired in terms of size and stability, but they were an immediate hit with the bowhunting fraternity, myself included.

Some treestand designs had sharp edges and damaged trees, making them illegal to use on public hunting land, and on private land without written permission. Early commercially manufactured stands had another problem: They often twisted, making noise whenever the hunter shifted his weight. In addition, some came with bolts and wing nuts that had to be inserted and tightened while holding the stand with one hand and a tree limb with the other. Despite their drawbacks, they worked. Hunters saw and harvested more deer, and had the freedom to move their stand whenever the need arose.

Today there are more treestand models on the market than ever before, and for anyone looking to buy his first stand or replace an older one, the choice can be bewildering. In my opinion there are several uncompromising factors to consider: Safety, quietness, comfort and weight are four factors hunters need to consider before plunking down hard-earned dollars for a new hunting platform. Of the four, safety is certainly the most important.

Portable treestands come in several designs. Climbing stands, those allowing a hunter to use the platform and a hand climber to ascend and descend a tree, are the most popular. For climbing, the stand-up, sit-down method is considered the saf-

est and easiest to master. Most treestand manufacturers offer several models of climbing stands that are versatile and easy to use. Once the stand is in place, the hand climber makes a comfortable seat. The only problem with climbing stands is that they may be slightly heavier to tote into a hunting area, and can't be used for climbing all types of trees. If your hunting area has many trees with straight trunks, such as ash, then a climber is certainly worth considering.

Other stands are designed as "hang-on" stands, attached to the tree with a chain or strap. They require the hunter to first climb the tree, pull up the stand, and attach it. A climbing stand can also be used in this manner, adding to its versatility.

I have a personal bias against stands attaching to the tree with nylon straps. Although these stands may meet or exceed all current safety standards, the effects of sun, rain, or weather may eventually cause the straps to deteriorate. In addition, small animals such as squirrels or even porcupines may gnaw at the straps, possibly making them unsafe. If you use a stand with nylon belts or straps, be sure to check them every time you use the stand. In fact, it's a good idea to check any stand before climbing into it. Chains, especially those with a rubberized coating, offer a better option and should be considered if this type of stand appeals to you.

Be especially careful when using a treestand in freezing weather. Rain seeping into the structural tubing can freeze and burst the tube frame, rendering the stand unsafe. For this reason, it's best not to leave the stand in the tree for extended periods of extremely cold weather. Packing it in and carrying it out will eliminate this problem.

Regardless of the stand chosen, be sure there is a sticker on the stand or the box stating the product is certified by the Treestand Manufacturers Association. Most manufacturers of top quality treestands joined the TMA to be sure certified stands measure up to safety standards

developed by a panel of manufacturing representatives. The standards developed by the TMA came from suggestions made by insurance companies and industry engineers. They assure the purchaser the product is designed with safety in mind. Good quality stands come with instructions for use and an integral safety belt. Using the belt properly eliminates many potential injuries. Be sure the stand you are considering has such features.

A good treestand is a quiet one and usually features welded construction. Welded stands are manufactured with no — or at least a minimum number of — bolts, pins or rivets, which can cause squeaks, groans or clicks whenever the hunter shifts his weight. Stands that do have bolts as components should feature non-metallic washers between the metal parts to eliminate or at least minimize noise.

Commercially manufactured stands are fabricated from aluminum, steel or, in some cases, steel and a composite material such as carbon. If considering an aluminum stand, be aware that aluminum is not as stiff as steel but has the advantage of being lighter, improving its portability. Composite stands are strong and lighter in weight but can cost considerably more than other stands. Steel is slightly heavier and may be prone to rust if the protective paint coating is scratched. Steel is stiffer than aluminum and is less likely to twist when a hunter shifts his weight, rendering it more stable and quieter than aluminum. Steel is also easily welded, eliminating rivets and bolts in some models.

Some stands are crafted from aircraft aluminum, which is stiffer than standard aluminum stock. Aircraft aluminum may be as stiff as steel but has its drawbacks. Aircraft aluminum doesn't lend itself to welding and is usually assembled using rivets or bolts. These fasteners may eventually work loose, rendering the stand noisy or worse yet, unsafe. In truth, certified stands of either material are equally safe, so it's the noise element rather than the

safety factor that should be the main consideration. I hunt from both aluminum and steel stands and find steel, despite some additional weight, to be the better choice. A treestand may put a hunter out of range of a whitetail's nose, but if the hunter can't sit still, he runs the risk of being detected by the deer's eyes and ears.

Many stands currently on the market come with an integral tree seat allowing the hunter to be more comfortable while on watch. I think a tree seat is a good idea providing it's high enough. In my opinion, most seats are too low. Many integral tree seats require the hunter to shoot from a sitting position when deer suddenly appear. This is fine if you have practiced shooting from that position. If the hunter chooses to shoot from a standing position, the motion of rising from a low seat might be detected.

Stands featuring a separate hand climber allow the hunter to place the seat higher in the tree, thus eliminating movement as deer approach. Many hand climbers feature cushioned seats and back rests for comfort, some even have cushioned armrests to help eliminate shoulder and neck fatigue. The seats attach to a tree with a rope and hook arrangement and lock down with a strap, providing the hunter with an easy to use, quiet, solid seat that can be positioned at any height above the platform.

When purchasing a treestand, check the way it attaches to the tree and how it is supported. A good stand will not damage a tree because it will hang using compression and tension to keep it tight and secure. If it has knobs on the back bar, be sure they are tethered to prevent loss and to allow quick adjustment. The old style Baker treestands were notorious for lost wing nuts or bolts. I used to have at least four spare bolts and wing nuts taped to the rails with duct tape in case I dropped one. I have used all of them. Tethered knobs, featured on some models, virtually eliminate this annoying problem.

The platform of the stand is where you will be spending all of your time while in the tree. It is important that it is large enough to permit freedom of movement and to be far enough from the tree trunk to allow enough room to draw the bow. The grid or slats of the stand platform should be large enough for mud or snow to fall through and it should have some sort of nonslip traction strips to ensure positive footing in rain or snow.

Before purchasing a treestand, be certain the product lends itself to your bowhunting needs. Not all stands on the market are designed for bowhunting. Although archers can use them, some stands are better suited for gun hunting.

Last season I used a Saber Extreme manufactured by Summit Specialties in Decatur, Alabama. The stand proved ideal for bowhunting because it didn't damage the tree, gave me plenty of shooting room, and the independent hand climber served as a comfortable seat. Positioning the hand climber just below my rear end when standing on watch eliminated almost all movement. When a deer approaches, I can rock forward slightly from the seat and grab my bow. It's a comfortable arrangement.

This year Summit has come out with a unique method for attaching their new Viper and Cobra stands to trees. The stands attach to a tree in seconds, and have no pins, bolts, or knobs to work loose. A rubberized cable called a Silent Glide Cable quickly wraps around the tree and the stand is ready to use in almost no time. What is important for Pennsylvania hunters is that the stand has no sharp edges, so it doesn't damage the tree in any way.

Carrying straps allowing for easy backpacking to the hunting location, and adjustable, individual foot harnesses are two other features to look for in a treestand. The adjustable, individual foot harness is an additional safety feature, and should be an integral part of any climbing type stand being considered.

Because of age or physical disability, a

segment of the bowhunting fraternity may not be comfortable with a climbing treestand or may be unable to climb a tree to install a hang-on model. In addition, some areas, overgrown fields for example, may not have trees big enough to hang a stand, so a ladder stand might be a better option. Ladder stands appeal to hunters who don't want to bother packing a stand into or out of their hunting area every time they hunt. Ladder stands provide security and convenience, but are heavier, more cumbersome, and less mobile than other types of stands. Still, ladder stands are safe, comfortable, stable and affordable. If this type of stand appeals to you, be sure it features all steel, welded construction, a nonslip platform deck, a mid-ladder support brace and a safety belt. Ideally, the rungs of the ladder should have enclosed foot guards to prevent slipping when climbing up or down the tree.

After buying a treestand don't wait until opening day to try it. Become familiar with the way your stand works and how it attaches to the tree. Be sure to read the accompanying instructions, and be aware of how to properly secure the stand for safety. Before trying to climb with it, attach the stand a foot or so off the ground and move in it as you might do while hunting. Become familiar with how the safety belt works and how to wear it properly while hunting. Finally, be sure to practice your shooting from the elevation you ultimately expect to hunt from.

Portable treestands are becoming more popular every year as archers continue to discover their advantages. There is no better method for defeating a whitetail's sense of smell than using a treestand. Comfortable, secure, safe stands make long waits more endurable, contributing to the quality and success of the hunt. Every hunter has different needs and a different style of hunting. Choosing a stand depends on a particular hunter's age, needs, budget and hunting location. Fortunately, there are good choices. □

Shotshell reloading presses have come a long way from the hand tools of the black powder years. Now, modern equipment is capable of putting out eight or more shells per minute.

Modern Technology

THE FLINTLOCK RIFLE enjoyed a long period of popularity — some 500 years. Despite being loaded from the muzzle, it was possible for a well-trained soldier to load and fire a flintlock three times in a minute. Hunters had no need for that type of speed, but I'm confident that a colonial hunter could get off a second shot in a matter of seconds.

With all the affection soldiers and hunters had for the flint and frizzen outfit, it became clear that it was easier and quicker to load a firearm from the breech. I've pointed out that a flintlock could be loaded quickly, but dumping powder into the muzzle and shoving a patched ball down the bore took time, plus the priming pan had to be charged. Going through this routine was not difficult from the standing position, but it was next to impossible to do from the prone position. History reveals that during the noise and tumult of battle, a soldier might not know his rifle had misfired and would load a second powder/bullet load on top of the



Helen Lewis

MODERN TECHNOLOGY has enabled a variety of gear to become available to today's shooter and hunter. Lewis is seated on a steady Varmint Master BR-Pivot bench, experimenting with a Weaver T-850 Laser Max rangefinder.

first — with a strong possibility of blowing the rifle to pieces.

The self-contained cartridge had to be welcomed with open arms by both soldiers and hunters. No longer was weather a major concern. Also, cartridges could be carried in belts, pockets and saddles. The breech-loading rifle and self-contained car-

tridge changed the course of history. Long before the metallic cartridge came into existence, a variety of attempts had been made to manufacture a repeating rifle. These included multiple barrels, revolving cylinders and magazines.

Many historians agree that Tim Murphy's two-barrel Golcher rifle possibly fired the shot that was the turning point of the Revolutionary War. Murphy was a member of Colonel Daniel Morgan's company of Pennsylvania riflemen known as the Shirt Men. Legend claims that in the Second Battle of Freeman's Farms (some refer to it as the Battle of Saratoga), Murphy fired at British General Simon Fraser. Murphy's first shot hit Fraser's horse. He rotated the barrels and missed the general on his galloping horse. Loading quickly, his third shot ended Fraser's life. I guess it can be argued that Tim Murphy's shot with a Pennsylvania long rifle had something to do with deciding the outcome of those long and bloody years.

No one knows when the first repeating rifles were made or by whom. I won't delve into the history of the repeating rifle, but a German family name Kalthoff invented repeating wheellock rifles in the early 1600s. Peter Kalthoff produced a two magazine (one for powder, one for balls) wheellock around 1640. It's too complex to discuss here, but it did work. The Kalthoff rifles were actually used to some extent by the military.

By 1858, a young mechanic named Henry in the New Haven Company (reorganized to form the Winchester Repeating Arms Company) made a self-contained cartridge suitable for repeating rifles. Two firing pins struck both sides of the cartridge rim at once, thus lessening the chance of a misfire. At first the new rifle was known as the Henry rifle, and the cartridges had an H stamped on their heads. The repeating rifle brought a new philosophy to shooting.

By the late 1800s the slide action shotgun was available. Double-barreled shot-

guns had been around for years before the pump shotgun, but the firepower of a pump gun holding five to seven shells appealed to thousands of small game hunters. In fact, the pump still may be the most popular shotgun action in America, although the autoloader is not far behind.

It wasn't long until hunters and shooters were burning ammo at an unbelievable pace, and it didn't take long to realize that all the empty cases scattered on the ground should be reloaded instead of discarded. Hence, the need for reloading equipment. Here again, there are not absolute dates or names to reveal when and who brought out the first reloading press. The February 1892 issue of *American Field* carries an advertisement for a powder measure especially designed for nitro (smokeless) powder. It also announces a NEW Club paper shell perfectly adapted for nitro powders. A 1903 A. J. Rummel Arms Co. catalog shows a foot operated reloading press that handled Nitro and black powders, and reloaded both rifle and shotshell ammunition.

It's obvious that home reloading equipment was available shortly after repeating firearms were in use. For reasons I have never figured out, handloading remained in a dormant stage until after World War II. I recall being in a sporting goods shop in 1953 where a factory representative was demonstrating a Hollywood shotshell reloading press. I'm somewhat ashamed to admit it, but I had a suspicious attitude regarding handloaded ammo because of a friend's handloaded 8mm Mauser cartridges that had failed on a deer hunt in 1947.

Regardless of how I felt about the handloaded round, the hobby was here to stay. Many hunters and shooters, including yours truly, bought rifle presses. One exasperated shop owner (who carried thousands of dollars worth of factory shells) sold all of his handloading equipment at prices well below his cost. He claimed handloaded shells were not only unreliable, but extremely dangerous, and he wanted no part of this new fad that would be dead in a

couple of years. An employee revealed years later that the owner was worried handloading would wipe out his lucrative factory ammunition business.

Well, that episode dates back almost 50 years, but home reloading was not a flash-in-the-pan fad; it gained in popularity and reliability through the years, due to the fact that reloading equipment became not only more automated but also extremely precise. The simple single-stage shotshell press I saw back in 1953 turned out a nice looking round, but it took several hand operations. In all fairness the Hollywood press was a major advancement over the hand tools of the black powder years.

If I recall correctly, several progressive type shotshell presses, including the MEC 250 and Lyman Grand American were available in the early 1960s. It was boasted that the Grand American could complete six operations at six separate stations at the same time with one stroke of the lever. I never operated the Grand American, but Lyman claimed it could crank out 250 shells per hour. I have tested many shotshell presses that easily doubled the speed of the Grand American, though. However, as with all reloading, speed is not the paramount factor. The goal of a handloader is to turn out top quality shells no matter what type of equipment is used. To get this type of ammunition from a progressive press requires that the press be precise and accurate in doing each operation. Unlike single-stage reloading, where the handloader is doing just one case at a time, a progressive press is doing many operations with each pull of the handle. It de-

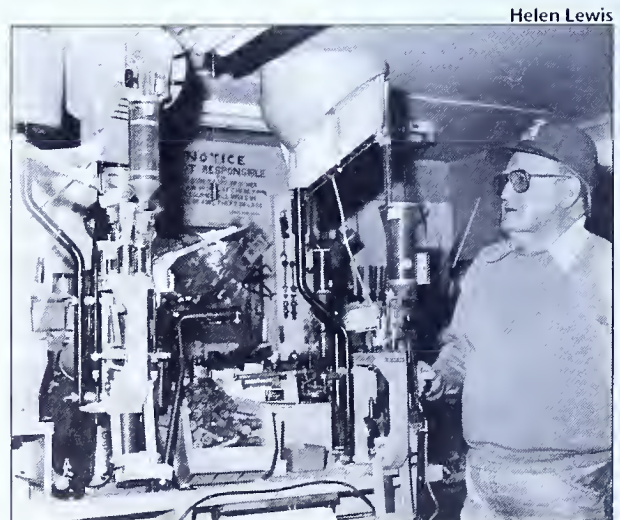
feats the purpose for the operator to check every shell at each station, and that means a progressive press must be trustworthy.

The new Dillon SL900 shotshell reloading press is close to being a hand-operated fully automatic reloading press. Once the SL900 is in full operation, the handloader does two operations — pulls the roller handle and stuffs a wad in the wad guide. Everything else is done automatically and efficiently, and that includes feeding an empty shotshell case automatically in the shell holder.

A closer look at the SL900 Dillon shows it's a large and heavy machine based on the Dillon XL650 progressive rifle press, which means it has the same automated features. One of its outstanding features is a case feeder that is powered by an electric motor. The case feeder bowl holds approximately 80 empties. When a switch on the bowl activates the feeder, a disc inside it turns slowly and drops empty hulls into the feed tube. When the tube is full, a micro switch shuts the case feeder off. The last empty in the feed tube activates the micro switch. When it drops out of contact with the micro switch, the feeder is turned on to drop another empty in the tube.

Every stroke of the roller handle transfers an empty case from the feed tube to the shell plate via a case insert slide ramp. Once a hull has been placed in station one,

LEWIS looks on at the Dillon SL-900 shotshell press, left, and the Dillon XL650 metallic cartridge press, right. Each press has an automatic case feeder. Note the SL-900's holder is full of reloads, which took only one hour to produce.



Helen Lewis

pulling the roller handle down will resize the brass base of the empty, expand the case's mouth and push out the primer. Returning the roller handle to its full aft position advances the resized empty to station two where a new primer is inserted when the roller handle is pushed aft. It's worth noting that the roller handle is in its rest position when straight up. Pushing the roller handle back several inches activates the aft position, and three operations take place: an empty hull is pushed into the shell plate, a primer is seated and the wad arm swings out to accept a wad. It's essential to push the handle completely back. The primer can be felt being seated. At the same time the primer is seated, a wad must be placed in the wad guide.

The instructions are clear and concise, so there is no need to go into detail on the

loading procedure. Both the powder measure and shot dispenser are shell activated. In other words, a powder charge or shot charge will not drop unless an empty is in the die.

Once the shell plate is full, operating the SL900 Dillon requires pulling the roller handle and stuffing a wad in the wad guide. It's imperative to make a complete downward and full upward stroke every time. In normal operation, the SL900 runs smoothly without a great deal of effort.

The SL900 Dillon is an advanced shotshell reloader that is built for a lifetime of service. I didn't attempt any high production tests with the big blue machine but, using a well-paced operating speed, I had no trouble completing eight shells per minute. Truth is that's probably a low production rate for this press. □

Fun Games — By Connie Mertz

Bear Facts

Copy the letter found at the end of each **true** statement about black bears. If you're correct, the letters spell the scientific name of the black bear.

- | | | | |
|--------------------------------|---|-----------------------------------|---|
| ___ largest omnivore in PA | U | ___ solitary | A |
| ___ largest hunted animal | | ___ generally nocturnal | M |
| ___ in PA | R | ___ cubs weigh about three | |
| ___ cubs born in April | A | ___ pounds at birth | O |
| ___ flat-footed with five toes | S | ___ about 7-inch tracks | E |
| ___ true hibernators | E | ___ whine, whimper, growl | R |
| ___ poor vision | U | ___ omnivorous | I |
| ___ keen sense of smell | S | ___ excellent swimmer | C |
| ___ found mainly in south- | | ___ males are called boars | A |
| ___ eastern PA | T | ___ can run up to 30 mph | N |
| | | ___ marks territory with claws or | |
| | | ___ teeth | U |
| | | ___ also found in Alaska | S |

answers on p. 64

In the Wind

By Bob D'Angelo

Since 1948, the U.S. population has increased from 146 million to more than 266 million. It is estimated to reach 292 million by 2008, and more than 393 million by 2050. Satisfying the growing natural resource needs of the expanding population will present quite a challenge.

The Michigan Department of Natural Resources estimates that 140 gray wolves occupy the mainland and island chain within the St. Marys River passage in the Upper Peninsula. There are at least 20 packs containing five to six wolves apiece.

For the first time in the state's history, Nevada's wildlife commissioners voted last spring to authorize crow hunting seasons.

In England, massive protests by hunters, sportsmen and rural Britons against anti-hunting legislation worked, as a measure to ban fox and deer hunting with dogs was declared all but dead following a vote in the House of Commons.

Despite ranking 50th in human population, Wyoming ranks third in state funding for threatened and endangered wildlife. In 1996 Wyoming's work on grizzly bears, bald eagles, black-footed ferrets, peregrine falcons and other rare species totaled \$1.2 million. That contribution was surpassed only by Arizona's \$4.4 million and Washington's \$2.5 million.

Hunter safety courses, now offered in all 50 states, began in New York in 1949. These courses are one of the major reasons why hunting is so safe, with only 7.06 injuries per 100,000 participants. According to the National Safety Council, for every 100,000 participants there are 3,313.48 football players and 57.32 bowlers injured. Ping pong comes closest to hunting's safety record, with 15.32 injuries for every 100,000 participants.

At one time more than a quarter of a million bald eagles may have lived in what's now the lower 48 states. By the early 1960s, there were fewer than 500 nesting pairs. The present population exceeds 4,000 breeding pairs.

Federal land ownership is declining steadily — from 47.3 percent in 1900 to 28.7 percent in 1992.

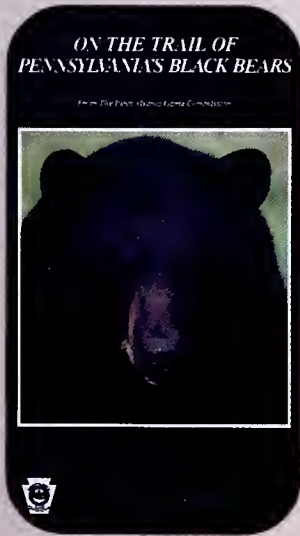
In 1980, 10.2 percent of the U.S. population hunted while in 1990, 9.4 percent did. Male hunters declined from 19.5 percent to 16.4 percent; however, the percentage of females increased from 1.3 percent to 2.7 percent.

Ten thousand years ago, forestlands covered 34 percent of the world's surface. One hundred years ago, 32 percent of our planet was still forested. Since 1950, forest cover has declined to just 12 percent.

Answers: URSUS AMERICANUS.

Deer & Bear Videos:

Journey through the wondrous world of our most popular animal in this captivating 75-minute video. Two years in the making, shot from suburban Philadelphia to deep within the Allegheny National Forest, **Pennsylvania Whitetails** features breathtaking footage of the highly adaptable white-tailed deer.



Hike along with Game Commission Biologist Gary Alt as he explores the fascinating world of one of our most impressive mammals. In **On the Trail of Pennsylvania's Black Bears**, Alt follows the animal through the phases of its life and the seasons of the year. This 100-minute video documents bear behavior never before captured on film.

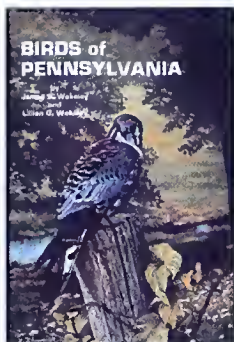
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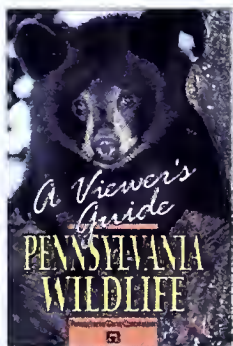
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Pennsylvania Game Commission: 1895-1995, by Joe Kosack, covers the agency's first 100 years and includes more than 60 historical photographs.
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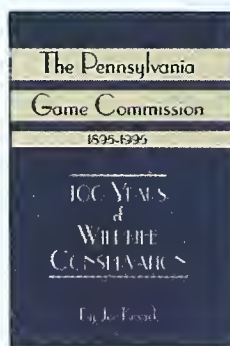
Birds of Pennsylvania, a 214-page hardcover by James and Lillian Wakeley, details birds most commonly found here, plus information on their biology and behavior.
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Gone for the Day is a compilation of Game News columns written and illustrated by famed wildlife artist and naturalist, the late Ned Smith.
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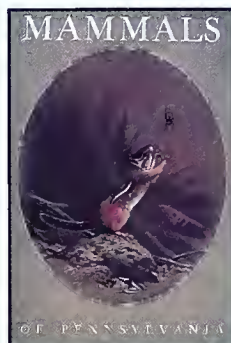
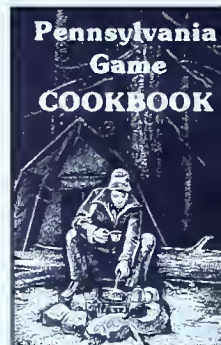


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Pennsylvania Big Game Records, 1965-1986, lists the state's official trophy deer and bear records, along with many stories of exciting hunts.
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Pennsylvania Game Cookbook is a collection of nearly 200 recipes for popular, and not so popular, game animals.
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Mammals of Pennsylvania, by J. Kenneth Doult et al. profiles the state's mammals and their roles in the state's history.
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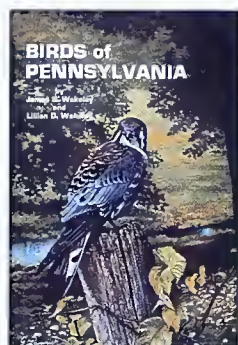
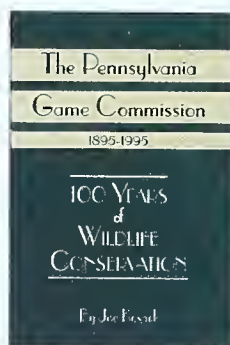
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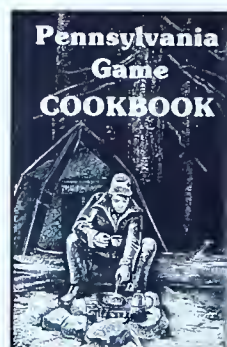
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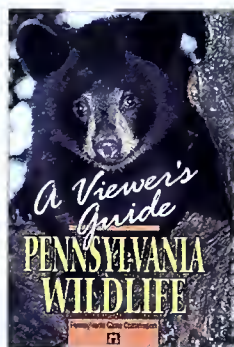
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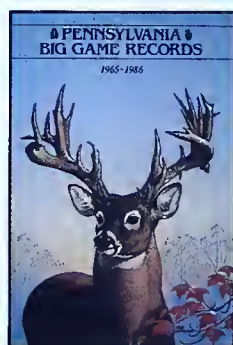


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Deer Progress Report

AT THE January commission meeting, Scot Williamson of the Wildlife Management Institute — which is sponsored by the shooting arms industry — presented a progress report on the review of our deer management program being conducted by the Pennsylvania Deer Management Working Group.

Formed last year to involve more interest groups in deer management decisions, this group is made up of around 40 individuals representing sportsmen's groups, wildlife conservation organizations, state and federal agencies, farming interests, private forest landowners, the state legislature and universities.

So far, the group has identified nine broad issues to address. In general, these issues indicate the need for the agency to refine deer management to better take into account the goals of both private and public landowners. They also emphasize that deer management goals be based upon habitat quality and quantity, and that ways to improve habitat management be continually explored. The group also suggests that hunters, farmers, foresters, community leaders and others with a strong interest in deer management become directly involved in deer management decisions.

In addition, the working group has made several recommendations. The group suggests that the commission create a new way to allocate antlerless permits to better regulate antlerless harvests on areas where deer density is either too low or too high, on private and public land. The group also suggests that the commission consider the use of longer and/or concurrent antlerless seasons, work more closely with local interest groups to achieve deer management objectives, and provide forest landowners more fencing options and greater latitude in controlling deer damage.

Over the next 18 months, the working group will continue to look at ways to better regulate antlerless harvest on private and public lands, and to better involve the public in deer management decisions. The group will also explore alternate methods to determining and achieving deer density goals, again involving other interest groups in the process.

New deer management units, involving stakeholder groups in deer management decisions, giving landowners more options to control deer populations on their properties, and longer and concurrent antlerless seasons are issues and recommendations the agency has already begun to explore and implement. Green tag farms and deer depredation permits, the youth deer hunt, the proposed 3-day flintlock season for antlerless deer, and the open houses conducted over the past couple months are just some examples of how the agency is working to solicit public input and provide expanded hunting opportunities.

The PGC remains committed to providing the best deer management possible, to provide the best hunting possible, without sacrificing or jeopardizing agriculture, forests and the health of the deer herd. It's hoped that the independent review by the working group will lead to fresh approaches and widespread agreement and support for these goals and how they're to be obtained. — *Bob Mitchell*

letters

Editor:

I was appalled to discover that State Game Lands 211 in northern Lebanon County is being used for a dump.

Looking down the mountainside I saw appliances, furniture, tires and plastic jugs.

I just can't imagine how anyone could spoil such a beautiful area.

B. BAILEY,
ELIZABETHTOWN.

Editor:

A special thanks to WCO Rich Weaver and Deputy Gordon Frack. I was fortunate enough to get a black bear, and these two officers put forth a great effort to help me get it out of the woods.

Thanks, guys.

L. TRAISTER,
KITANNING

Editor:

Thank you for allowing junior hunters to hunt antlerless deer on the Saturdays of buck season. My school doesn't close for doe season, and my parents don't allow me to take off.

This year was my first to hunt deer, and we spent many weekend afternoons at the rifle range, looking forward to deer season. It was then an exciting experience to shoot my first deer, a doe, on the first Saturday.

R. ALEXANDRE,
DUNCANSVILLE

Editor:

"It Just Ain't Right," in the November issue, left me with a feeling of disgust. The

arrogant slob who showed off the bear should be shunned not just by his community but by all Pennsylvanians, and he should not be allowed to go near a woods again.

The name of the judge should be published, along with his reasoning for the decision. Finally, the officials of the county fair should have never allowed "Johnny Slouchan" to display the bear.

What a truly sad story.

W. GANSHAW,
WILSON, NY

Editor:

With 60 years of hunting in 20 states, I can site many examples of wildlife conservation officers going out of their way to be helpful. I agree with Commissioner Sam Dunkle that the public perception of wildlife conservation officers is a good one.

I also applaud you for your courage to print controversial articles such as Steve Hower's "It Just Ain't Right." Your openness continues to make *Game News* one of the best in the country.

W. NICHOLS,
WAYNESBORO, VA

Editor:

In the picture accompanying Rich Larned's "Behind the Badge" column in the December issue were deer parts and arrowheads.

Why were arrowheads displayed in the picture?

B. RENSEL,
ROCKTON

The arrowheads were evidence from another case. According to the Game and Wildlife Code, it's against the law to remove stones, minerals and other products, such as arrowheads, from state game lands.

Editor:

My son and I recently went on a long-awaited hunting trip to Michigan. We hunted a 20,000-acre tract of public land that included many lakes. We hunted three days and never even scoped a deer. I think the herd is mismanaged for several reasons.

First, Sunday hunting is allowed, but unless you hunt your own property, on Sunday's you have to hunt on public property. This causes an unsafe, over-hunted situation.

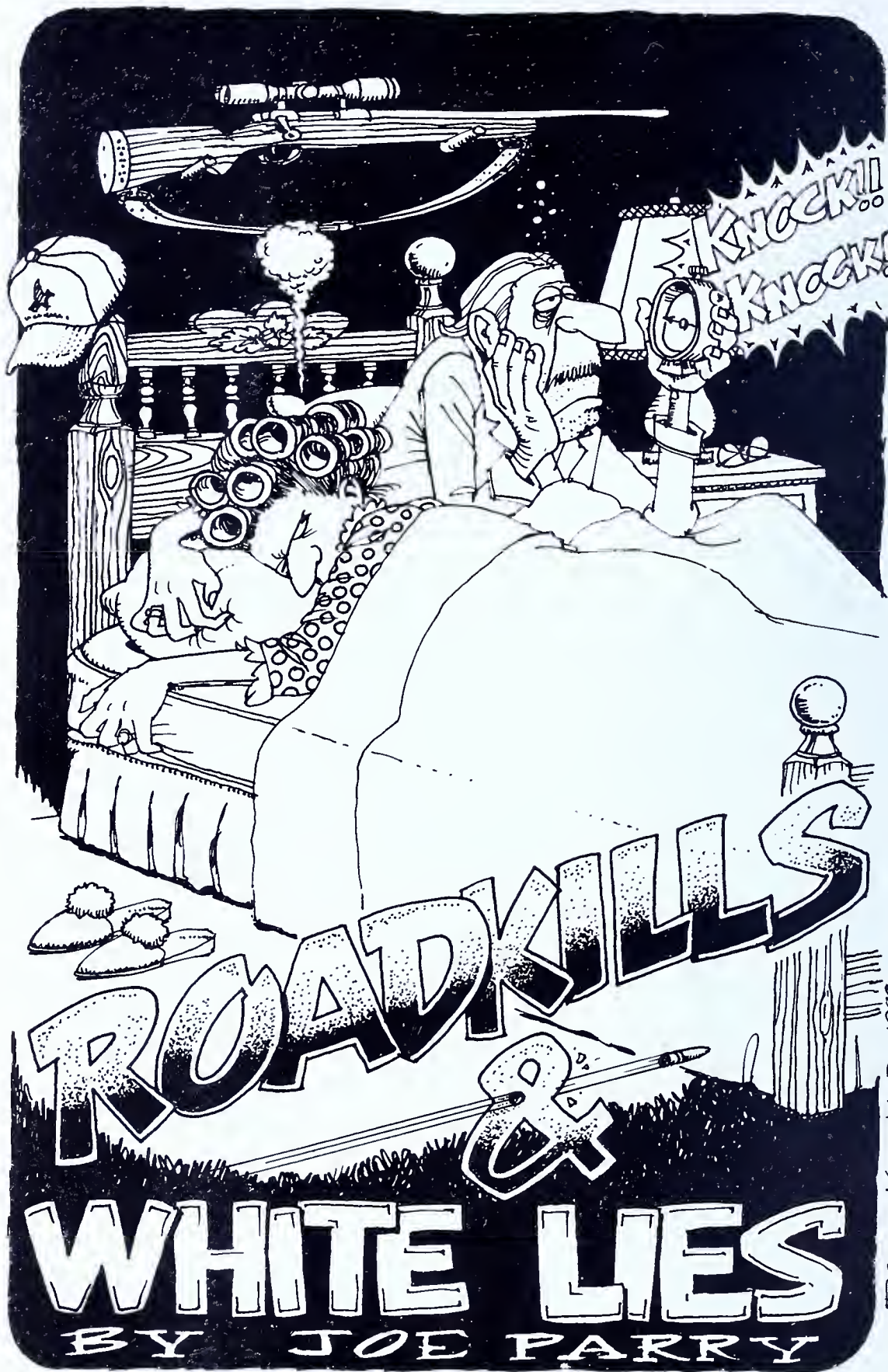
Second, hunting over bait is legal; people there say it has no effect on the deer population. Yea, right.

Third, the combined buck and doe season causes the does to be over-hunted.

While we made new friends, it took this trip for us to realize how good we have it here in Pennsylvania.

M. KENSINGER,
TYRONE

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**



DENNIS KARCHER • 1999

A STEEL GRAY November sky bullied away the low hanging sun of Indian summer while the last of autumn's leaves succumbed to winds from the north. Familiar smells of musk in the forest air made it certain that Nature was making Her annual announcement: Buck season is on the next wind. And this meant a time for sacred indulgence for the 2-man rank and file of the Bullseye Bunch Infallible.

And no greed stricken, poor shooting, loathsome ethics pair were these two of the BBL. They had spent months in preparation to get things just right, for them and their highly respected quarry, the white-tailed deer. Each man harbored a deep love for wild things and wild places, and nurtured that fondness on a continuing, relentless basis. In this sense they were, indeed, infallible.

Little Joe's phone rang early Sunday morning. "That has to be Big Bill again," Joe said as he stumbled to the phone. This, according to accurate records kept by Joe, was Big Bill's 90th call concerning the upcoming buck season. Calls that came at all hours for all reasons, and most of which were unimportant. But that was Bill. Little things meant a lot to his big heart and childish mind, and abstract as it was to Joe, he loved him regardless.

"Hello, hello, hello Short Shooter. Is your sleepy mind aware of what Sunday it is?"

"I know what Sunday it is, Porky. Pick me up in 30 minutes. And don't forget your rifle, shells, targets and a thermos of tea. And, if you're driving, please don't forget your vehicle."

"Tea?" Bill questioned.

"Yes, Billy, tea. It'll be easier on the nerves than our 10W30-weight coffee and enable us to hold steadier on the sandbags."

The first shots from Big Bill's .32 lever action went nearly a foot low and six inches right. "Good grief, with the way that peashooter shoots, it's no wonder you never got a deer. You're fortunate to have befriended the master of the Bullseye Bunch.

Just watch what a few adjustments and an eagle eye will do. Bill's rifle soon clustered three rounds neatly centered two and a half inches above the bullseye.

The two were ready. Joe pounded last minute instructions into Bill's resilient mind. "And don't you dare bring a single eucalyptus cough drop with you tomorrow, Bill. Imagine what those awful things smell like to a deer." Bill loved those cough drops and always carried a good supply in every available pocket.

"No cough drops, Partner. I promise."

"And no aftershave or stinky antiperspirants."

"Nuttin' stinky, Joe. Nuttin' stinky. Promise."

"Okay," Joe said. "Now go home, get plenty of sleep and be here at 5 a.m."

Bill's knock on Joe's kitchen door must have measured in the low fives on the Richter scale. It was 3:45 a.m. "Bill, for cryin' out loud it's only 3:45."

"I know. I know. I was all set to do as you asked this mornin' when I discovered I was out of dental floss and I can't do anything before I floss. Got any, Partner?"

"Shut up and get in here before you wake up the neighbors." Joe went and turned on the radio for weather information as Big Bill came into the dark kitchen. As Joe fumbled with the radio, Bill paced about the kitchen. "Shhh. Geez Bill, you sound like a rhino walkin' on a hollow log." Joe switched on the light, turned to look at Big Bill and was blinded. "Holy mackerel, Bill. That's more fluorescent orange than I've ever seen in one place. You look like the Orange Bowl with feet."

"Looks nice, heh Partner?"

"Yea, Bill. Real nice. I just never realized there was that much orange

clothing in the county, that's all. Go on into the powder room and get your floss." The radio weather report called for increasing cloudiness with high winds through most of the day.

Bill whispered, "Can't go huntin' before my flossin'." Joe looked up and saw that Bill had a horrendous amount of dental floss. It looked like a large bird's nest, save for the one trailing strand that Bill directed between his pearly whites.

"What in Moses are you doing, Bill? Goin' bass fishin' or deer hunting? Why there's enough floss there to fill a deep sea reel." Poor Bill stood there, embarrassed.

"Yea, I know. I couldn't get the little blade to cut 'er off and it just kept comin' out. This here's the whole roll. I owe ye one, Partner, sorry."

"Drink your coffee, Bill and let's just get rolling."

Bill laughed and said, "Hey Joe, how's about we take along this here floss and drag out our deer with it?"

Joe shook his head, smiled at Bill's lovable way and said, "Billy, Me Lad, if you get a deer today I'll carry it out on my shoulders. Now let's go."

Big Bill followed Joe to Mr. "G's" farm in his own vehicle because Joe had intended on taking some photos for the newspaper and would have to leave at noon.

The weather promised a miserable day and Joe was worried about Big Bill's success. He wanted Bill to get a deer in the worst way. They parted and went to their respective stands. What a thrill it would be for that big-hearted Teddy Bear to get a buck, Joe thought while walking to his stand. The wind blew savagely. Decayed trees uprooted and crashed all around, and clouds passed as though they were racing. The morning hunt rapidly lost its flavor. Joe thought about getting Big Bill and calling it a day, but then he saw that blind-

ing mass of fluorescent orange.

"Hi, Little Windbucker. Think we'd better pack it in?"

"Yea," Joe said disgustedly, "Let's just head for the Coffee Palace and hope for a better tomorrow." A strong aroma of eucalyptus overpowered the muskiness of the forest. "Cough drops, Bill?"

"I know I promised, Joe, but that wind had me nervous. I knew the hunt was gonna be a loss and found a few cough drops I stashed in that big old oak tree by my stand and I couldn't resist. At least I waited 'til the wind was so strong I knew you'd call off the hunt." Joe spared Bill a tongue-lashing and off they went to their vehicles. Big Bill left first.

Joe noticed several hunters heading into a familiar section of woods. By golly, Joe thought, they just might push one outta there. He turned right instead of left, which would have taken him to the road to town. He pulled over, left his truck and hotfooted it out across a field to find a good vantage point just in case the other hunters pushed out a buck.

Joe heard one shot, then two more. Two bucks burst from the thick patch of woods and were quartering toward him. His .30-06 put the larger one on the ground. Fieldwork done, Joe headed on in to the Palace. Joe pulled into the parking lot and he could see Big Bill pacing like a mother hen. Bill ran out to greet him, "Where in tarnation you been, Joe? I've been so worried I could hardly eat. Been here over an hour. What happened?" Big Bill hugged Joe and shook him with the affection of a partner who really cared about his well being. Then Bill spotted the big 8-point in the back of Joe's truck. Joe saw the shock and at the same time the hurt in Big Bill's lovable blue eyes. Joe's mind raced in thought. He just wouldn't hurt Bill for the world and all its big bucks.

"What's that?" Bill asked. "You mean you got a buck after I left?" Bill's face was drained of all its color. Joe felt one lilly white lie wouldn't make his Maker angry.

"Naw," Joe said, "That there's a roadkill I found on my way in. I called the Game Commission and was told to turn it over to warden Regis. He'll give it away to some needy family, I imagine."

"Boy he's a dandy, Joe. Too bad we didn't see him out there today. I wouldn't have cared who got him."

Joe left to meet the game protector, thankful that Bill hadn't noticed the tag in the buck's ear. The officer thanked him and Joe left for home, certain he'd done the proper thing.

Joe went along with Bill every day of the season, just to share the usual joys that seemed to forever follow this pair of the Bullseye Bunch. But after relentless hunting on Mr. G's farm, Bill went without his first buck, and Joe's had been given away.

"Well, Bill, Monday begins doe season and neither of us have winter venison. You gonna score or ain't ya?"

Bill shrugged and formed that big smile that completely dimpled his cheeks. "Well, Joe, I'm ready. I just hope we have better luck on Monday than we did for our two weeks of buck season."

"While we're on the subject of buck season, Bill, do you recall telling me that you were so worried about me when I came late to the Palace that you could hardly eat? I would just like to share with you this list of what Rosie the waitress told me you ate in the hour or so you were waiting for me." Poor Bill had consumed an entire pot of coffee, four pieces of various pies, a large bowl of chili, three foot-long chili dogs, several dozen soda crackers — to combat indigestion — then rinsed it all down with two strawberry shakes topped with maraschino cherries.

Bill's face reddened with a childish look of guilt. "I was worried, Joe. Truly worried. I told you that. But I didn't tell you I wasn't hungry. Just that I could hardly eat."

Joe patted Bill's mammoth shoulder and asked, "Is that hardly eat, Bill, or heartily eat?"

The doe opener found the two together



on the
ridge
above
McGinnis

Hollow. They drank tea at the vehicle and parted with the customary, "Good luck."

By 10 o'clock Joe hadn't seen anything, so he decided to check on Big Bill. Joe found Big Bill's cough drop addiction to be at an all-time high. His whole stand area was strewn with wrappers. "I thought I told ye, no cough drops, Sneaky Pete?"

"Didn't have a one, Little Sherlock."

"Then how do you account for all these wrappers?"

"Just watch this." Bill unwrapped another cough drop and tossed it to the base of a hickory that had a hole in its trunk. A gray squirrel emerged from inside the tree, picked up the cough drop and zoomed right back into its den. "See there?" Bill said. "Been feeding that little rascal all morning."

"Yea, yea, Bill. And probably with the hope that your next squirrel fricassee tastes like eucalyptus? C'mon, let's get us a deer. I'll push out the hol-

low. You stay right here until I get back." Joe could hear deer moving out ahead of him. Moments later, *bang*. Then, *bang* again. And two more *bangs*. Joe wondered what in the world Bill was doing; that little .32 of his was right on.

Joe found Big Bill pacing like an expectant father, standing over a fat doe. Joe was ecstatic. "Billy Me Deer Slayer of The Fattest Kind, ya got one, your first deer." The joy was shared and Joe's heart was as full as it had ever been. "Why did you have to shoot four times, though?"

"Well, Little Buddy, she was lyin' over the gorge there in that laurel. Didn't want to take her lyin' down, so I shot three times just to get her to movin'. By gosh, Joe, if I'm gonna be a deer hunter, I'm gonna be a fair one."

Joe dragged Bill's deer for nearly an hour as they headed for the truck. "Appreciate your draggin' her out for me, Joe."

"Promised you I would carry one out if you got one, didn't I Bill?"

"Yep. You did."

"One thing about your leader, Bill, he never lies, especially to a fellow member of the Bullseye Bunch."

"Izzat right? Izzat right, Little Short Teller of the Lilly White Lie?"

"That is correct my friend," Joe said.

"Then how come," Big Bill said, "old warden Regis found a neat little 30-caliber hole in that big 8-pointer you told me was a roadkill?"

"Was a roadkill, Bill."

"Was not."

"Was!"

"Joe?" Big Bill's eyes begged for the truth.

"Well," Joe said, "If a guy looks real hard up there where I shot it, there are faint tracks where there used to be a logging road."

"You know what? If you weren't so dadblamed short I'd give you one of my famous bear hugs. I know why ya done it. Knew then. But thought sure you would take that buck home and hide it."

"Billy, that buck would have broken my heart if I had eaten even a single tenderloin from it. Remember, in the BBI the other guy comes first. Joe did what his heart dictated, Bill."

The season ended without Joe getting a doe. After his first day back on the job at the newspaper he came home tired and in the dismal mood common to the hunter when the season's over. Joe walked into his kitchen and on the table he found a note. "There are two porterhouse steaks in the frig, Joe. Those are for you and the wife for supper. If you look in the freezer, you'll find your wife allowed me to stock you up with a grand side of corn-fed beef. Anyone who would give away a whole deer deserves to suffer through beef all winter." The note was signed Big Bill The Deer Slayer. With a postscript that read, "Under all that beef is half of my deer. Eat it in good health because I ain't gonna give you a pound of my deer next season. Might, though, if I stumble upon some old roadkill with a 32-caliber hole in it. Bye. Billy." □

COVER PAINTING BY BOB CRAIN

Snow geese began stopping at the Middle Creek Wildlife Management Area about five years ago, on their way north to their nesting grounds above Hudson Bay. Since then, they've become a popular attraction among area birders. Snow geese can be distinguished most easily from tundra swans by their smaller size and black-tipped wings. All is not well with snow geese, though. The birds have become so abundant that they're destroying their arctic and subarctic nesting areas.

Gobbler Getters

By Bob D'Angelo

Game News Associate Editor



ALTHOUGH the 12 is the most popular gauge for gobblers, the 20-gauge with 3-inch magnums will do the trick out to 30 yards. Shown here is Mossberg's Model 500 Bantam 20-gauge with camo finish.

IN MAY of 1968 Pennsylvania hunters took to the woods for the first time ever for spring gobblers. An estimated 1,636 turkeys were taken during that 6-day season, and a survey revealed that on average hunters spent two mornings afield, heard 3.3 gobblers and saw 1.4 turkeys. Not surprisingly, hunter success was greatest in the northcentral part of the state. Now, more than 30 years later, thanks to the agency's trap and transfer program — and tremendous support from the National Wild Turkey Federation — turkeys can be found in excellent numbers throughout the state. During the 1997 spring season more than 233,000 hunters took nearly 31,000 gobblers.

In 1968, hunters used whatever shotgun they had for small game or fall turkeys. But today, the tremendous popularity of turkey hunting has created a niche for specialized equipment designed specifically for spring gobbler hunting.

The first time I hunted spring gobblers I took the 12-gauge Franchi semi-auto shotgun with a 28-inch modified choke that I used for pheasants and rabbits. After climbing to the top of Blue Mountain in Schuylkill County I yelped on my box call. Surprisingly, a booming gobble sounded from a bench just below and five hens rushed in and milled around only five yards away. As the hens drifted past I spotted the bright red head of a gobbler in tow, 40 yards away, staring right through me. Despite my best efforts, the bird refused to come closer. With the modified choke and 2¾-inch load, I wasn't confident in making a clean kill at that range, so I passed on the shot and the bird melted back into the thicket.

Right then I decided I'd get one of the new "turkey guns," just appearing on the market. And the following summer I had a Model 1300 Winchester NWTF Turkey Gun with a 3-inch chamber, camo finish, a sling and a 22-inch barrel with an extra-full choke tube. After patterning the gun with several brands of turkey loads, I was confident in killing a gobbler out to 45 yards. And I did the next season.

Today, turkey hunters have more shotguns and ammo to choose from

than ever before, and the Mossberg 12-gauge 3½-inch chamber Ulti-Mag that I recently switched to knocked a gobbler flat at 46 yards last fall. Here's a look at just some of the latest shotguns and shotshells touted as "gobbler getters."

Shotguns

Power, portability and concealment are three features the ideal turkey gun should have. Pumps and semi-autos are the most popular, but there are over/unders and side-by-sides designed for turkey hunting, too. Don't rule out the single-shot, either. One shot should be all a hunter needs.

Tops in big guns for gobblers is the 10-gauge shotgun. Remington's new Model SP-10 Magnum Turkey Camo semi-auto 10-gauge is a real powerhouse that provides extremely dense patterns from high capacity 3½-inch 10-gauge magnum loads with 2¼ ounces of shot. Yet, its gas-operated action tames recoil. An Extra-Full Rem Choke helps concentrate the heavy shot charge. For maximum concealment, the stock, receiver and barrel are completely finished with Mossy Oak Break-Up camo. A 23-inch vent rib barrel with ivory front and steel mid-bead allows quick pointing and accurate sighting.

American Arms offers a 10-gauge over/under for turkey hunters. Its Silver Specialty Magnum features a 26-inch non-reflective barrel and non-reflective wood.

The drawbacks of a 10-gauge are

that they are heavy and rather expensive. One 10-gauge turkey gun that packs a wallop yet won't hurt your wallet is New England Firearms' Special Purpose Camo 10-gauge. This single-shot has a camo finish, a 28-inch full choke barrel, and comes with

a sling. The company also has a 10-gauge black matte finish turkey gun with a 24-inch barrel and screw-in chokes. A full choke is supplied with the gun, but an extra-full tube is available.

For my money, I prefer the 3½-inch 12-gauge "super" magnums to the 10-gauge. Shotguns chambered for the 12-gauge 3½-inch shell cost less, weigh less, are more versatile and nearly as potent as their 10-gauge counterparts.

Mossberg's Model 835 Ulti-Mag 12-gauge pump chambered for the 3½-inch magnum comes in several variations. A 24-inch barrel version is available with either a Realtree or Mossy Oak camo synthetic stock and a set of choke tubes, including an extra-full

tube. A black matte finish 835 is also available with a 26-inch barrel that doubles as a turkey/waterfowl gun. The Model 835 also handles standard 2¾-inch and 3-inch shells. These shotguns also come with barrels that are overbored and ported for optimum patterns and felt recoil reduction. Camo models are drilled and tapped for scopes and feature detachable swivels and sling. The top tang safety is another nice feature.

Remington's new Model 870 SPS-T Super Magnum Camo is ideally designed for turkey hunting. It comes with a



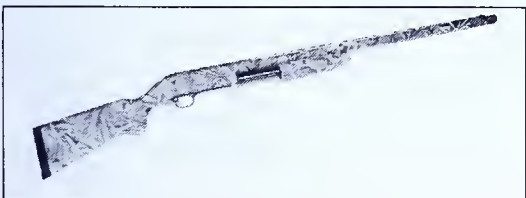
MOSSBERG'S MODEL 835 Ulti-Mag 12-gauge 3½-inch chamber pump with black matte finish and 26-inch barrel is as at home in the turkey woods as it is jump shooting mallards along creeks.



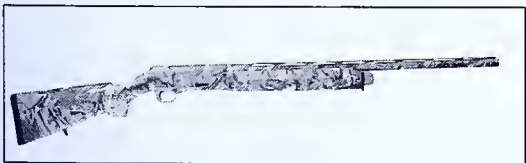
THE NEW MODEL 870 Express "Super Magnum" 12-gauge 3½-inch chamber pump shotgun, above, gives hunters 99 percent of 10-gauge performance. The Benelli Super Black Eagle, below, was the first 12-gauge semi-auto shotgun to handle the 3½-inch 12-gauge load. The Realtree camo finish expands the gun's versatility.



12-gauge 3½-inch chamber, 23-inch vent rib barrel and integral Rem Choke system. Included are Remington's Turkey Super Full and Extra-Full choke tubes for exceptionally dense patterns. The versatile Mossy Oak Break-Up camo pattern helps it blend into any background. Sling swiv-



THE ITHACA MODEL 37 pump has long been a favorite of upland bird hunters. Now there's the Turkeyslayer Model 37, above, with camo finish and 3-inch chamber. Below, the new Beretta AL390 12-gauge 3-inch chamber semi-auto shotgun now features a "total-concealment" finish in Bill Jordan's Advantage camouflage.



els and studs are standard and a matching camo pattern sling is furnished.

Benelli USA offers its inertia recoil operated 12-gauge 3½-inch chamber semi-auto shotgun. Their Super Black Eagle

model is available in Realtree camo finish and 24-inch barrel with five choke tubes. With the 24-inch barrel the Super Black Eagle weighs just 7.3 pounds.

New England Firearms has two 12-gauge 3½-inch magnum single-shot turkey shotguns available. Both have 24-inch barrels, one gun with a black matte finish, the other camo. The camo version comes with a full choke only, and the black matte shotgun is fitted for choke tubes.

American Arms has a side-by-side double-barreled turkey shotgun chambered for the 12-gauge 3½-inch magnum with non-reflective wood and metal finishes and 26-inch barrels. And also an over/under camo model 3½-inch magnum that weighs in at seven pounds.

Many turkey hunters still prefer 12-gauge 3-inch magnum shotguns, and there's no lack of new models in that chambering, either.

The Beretta AL390 has earned an outstanding reputation as one of the most reliable autoloaders available. The self-regulating gas system allows the use of target, field and up to 3-inch magnum loads with no adjustment necessary. The system vents excess gas when firing heavy loads, reducing wear and tear on the gun. The AL390 also features a corrosion-resistant chrome-lined bore and Beretta's versatile Mobilechoke interchangeable choke tube system. A magazine cut-off system allows the hunter to slip a different load into the chamber without emptying the magazine for additional versatility. The Beretta AL390 Camo 12-gauge now features a finish in Bill Jordan's Advantage and is available with a 24-inch barrel.

Winchester has a full line of Model 1300 Turkey pump guns chambered for the 12-gauge 3-inch magnum load. All have a 22-inch vent rib barrel, and it's

available in a variety of camo patterns as well as a black matte variation. All are drilled and tapped for scopes.

The Ithaca Model 37 has long been a favorite of upland bird hunters, and now there's a model designed for turkey hunters. The Model 37 Turkeyslayer handles the 12-gauge 3-inch magnum and is available in Bill Jordan's Advantage camo, as well as Realtree Extra Brown and Realtree Extra Gray. The shotgun's 22-inch barrel is fitted with a Caton Tightshot choke tube that produces tight patterns with copper-plated, buffered shot loads.

sters and many women taking up the sport. The 20-gauge with today's excellent 3-inch factory turkey loads is perfectly adequate for turkeys out to 30 yards.

The Remington Model 1100 Youth Synthetic Turkey Camo shotgun is an ideal choice for women or young hunters. This 20-gauge lightweight semi-auto balances a 1-inch shorter stock with a 21-inch vent rib barrel. Chambered for 20-gauge magnums, the gas-operated action reduces recoil. It is supplied with a Rem Choke full tube that can be interchanged with other Rem chokes. The synthetic stock and forend are covered with Realtree Advantage camo, and both barrel and receiver

have a non-reflective, black matte finish.

Winchester's Model 1300 Turkey Black Shadow pump shotgun comes in a 20-gauge version chambered for the 3-inch magnum. The shotgun has a 22-inch barrel and a synthetic stock.

TURKEY HUNTING SAFETY TIPS

Positively Identify Your Target.
Make Your Position Known to Other Hunters.
Never Stalk a Turkey or Turkey Sound.
Assume Every Noise and Movement Is Another Hunter.
While Calling Select a Natural Barrier to Protect Your Back.
Shout "Stop" to Alert Approaching Hunters.
Eliminate Red, White, Blue and Black from Your Clothing.
Preselect a Zone of Fire.

For those who like the bolt action, Savage and Mossberg offer 12-gauge 3-inch magnum bolt action turkey guns. Savage's 210FT Master Shot looks and feels much like a deer rifle. Its 24-inch barrel is threaded for interchangeable Winchester choke tubes, is drilled and tapped for scope mounts, and comes with a bead front sight with U-notch rear blade. The shotgun comes in Advantage camo.

Mossberg's 695 bolt action Turkey Gun has a 22-inch barrel and comes with an extra-full choke tube. The gun comes in Woodland camo, has a two-round detachable magazine and is equipped with Weaver-style scope bases.

There's now several good 20-gauge turkey guns geared towards the young-

Ithaca has a 20-gauge version of its Model 37 pump designed particularly for women and younger hunters. The 20-gauge Turkeyslayer Youth Model has a scaled down stock to fit a smaller hunter and weighs only 6.5 pounds.

Mossberg's 20-gauge Model 500 Bantam pump shotgun comes with a 22-inch vent rib barrel with extra-full choke tube, a camouflage finish, and synthetic shortened stock with an easy reach forend.

The New England Firearms' Turkey Camo Youth 20-gauge single-shot has the same look as their camo 12-gauge, but in a 20-gauge 3-inch package with a 22-inch full choke barrel, all at a mere 5½ pounds. It retains all of the great features of the rest of the New England Firearms' turkey gun line, like the Transfer Bar System for safe hammer down carry.

Turkey Loads

The only way to determine which shotshell patterns best in any particular gun is to test as many different loads as possible and, if your turkey gun has them, with different choke tubes. My 12-gauge Mossberg Ulti-Mag patterns better with the extra-full choke tube, but my Mossberg Model 500 Bantam 20-gauge shoots a tighter, more consistent pattern with an optional full choke tube rather than the extra-full tube that comes standard with the gun.

When patterning use one of the special turkey targets designed for this purpose. These targets define the vital bone structures of the bird's head and neck. Four or five pellet hits on the vital structures of the target's head and neck at a determined distance over an average of five shots per load should be the minimum for an acceptable gun/load/choke combination.

Although it would seem that the shells stuffed with the most pellets would produce the densest patterns and, therefore, be the best turkey loads, that's not necessarily true. Pellet velocity and its corresponding en-

ergy affects maximum range as much as pattern density.

Winchester determined that 2.6 foot-pounds of energy per pellet are needed to cleanly kill a turkey. Most heavy loads containing number 6 shot fall below 2.6 foot-pounds at 30 yards. Number 5 shot falls below the energy

During the 1998 spring gobbler season there were 10 hunting incidents — down from 12 during the previous spring. Every incident — all non-fatals — were hunters shot in mistake for game due to the offender's failure to properly identify the target.

level at 40 yards, and number 4 shot drops below at 50 yards. That's why I prefer number 4 and 5 shot (which-ever load patterns better) when I take to the turkey woods.

And that's the reasoning behind Winchester's new Supreme High Velocity Magnum Turkey shells. Because these shells have less shot with a similar powder charge of comparable turkey loads, Winchester claims they have a 13 to 21 percent increase in on-target pellet energy at 40 yards. Winchester offers these loads in 12-gauge 3½-inch 2-ounce copperplated, buffered number 4, 5 and 6 shot that have a velocity of 1,275 fps, and 12-gauge 3-inch magnum 1¾-ounce loads of 4s, 5s and 6s at 1,300 fps. For comparison purposes their Supreme Double X Magnum Turkey load in the 12-gauge 3½-inch version has 2¼ ounces of shot at a velocity of 1,150 fps.

In Winchester's Supreme Double X Magnum Turkey load line they offer



WINCHESTER'S new Supreme High Velocity Magnum Turkey loads have a 13-21 percent increase in on-target pellet energy at 40 yards over other turkey loads. Copper-plated, buffered shot ensures dense patterns.

10-gauge 4, 5 and 6 shot loads; 12-gauge 3½-inch 4, 5 and 6 shot loads; 12-gauge 3-inch 4, 5 and 6 shot loads; 12-gauge 2¾-inch 4, 5 and 6 shot loads; and 20-gauge 3-inch 5 and 6 shot loads.

Remington still offers its SP 4x6 Duplex Turkey loads that contain the two shot sizes — copper-plated number 6s for a dense pattern and copper-plated number 4s to add more energy at longer distances. These shotshells are available in 12-gauge 2¾- and 3-inch loads. Remington also offers its Premier Magnum Turkey Loads in a full range of payloads in 10-, 12- and 20-gauge.

Federal's Premium Magnum Turkey loads have a granulated plastic buffer and hard, copper-plated shot combined with a high-output primer, two-piece wad system, and custom-formulated powders that make this shotshell a favorite with experienced turkey hunters. These shells also come in a wide range of payloads in 10-, 12- and 20-gauge.

The bottom line in choosing a turkey load is to select the one that patterns the best in your gun (four or five pellets in the kill zone) at the maximum range at which you can confidently kill a turkey.

Sights

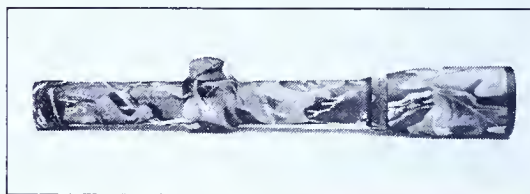
Scopes on turkey guns are seen more and more each spring, and some experienced hunters swear by them because they can help eliminate the margin of error that exists when aligning twin beads on a shotgun rib. I don't use a scope because in those situations when a gobbler comes running in, it's awfully hard to pick up a gobbler's moving head and neck. In certain situations, though, they can be a real asset.

After market light-gathering sights — like the Hi-Viz Sight — have become popular with many turkey

hunters. These simple yet effective sights attach to the vent rib with a magnet, and the light-gathering polymer rod produces an exceptional target/light relationship.

Do you need a specialized gun and load to kill a turkey?

Yes and no.



SCOPED turkey guns are becoming more popular each spring. The Pentax Lightseeker SG Plus is a 2.5x shotgun scope that is ready for the turkey woods in Bill Jordan's Advantage camouflage.

The extra full choke most of these new guns come supplied with could add a few yards to a shotgun's effective killing range, and shells with buffered, copper-plated shot produce tighter patterns, increasing the chance for a few more pellets into the vital zone of a turkey that's a few yards farther off. And the variety of camouflage finishes available on turkey guns now fit into a myriad of backgrounds and eliminate glare that could spook a gobbler into the next county. But then there's a lot to be said for using calling and woodsmanship skills to bring that wary gobbler within 25 yards, so that any old scattergun would do.

The main reason for using a shotgun and a load designed specifically for turkey hunting is that these products tend to instill confidence in the hunter using them. A hunter is more apt to take the time necessary to become totally familiar — and more effective — with a firearm and loads that were designed for a specific purpose. And that mental edge just might be enough to overcome a gobbler's superior senses, enabling a clean killing shot. And that should be the goal of every turkey hunter. Besides, it's just plain fun tinkering with a new gun and loads. And, after all, fun is the main reason we hunt and shoot anyway. □

Elk Lick Project

By LMO Cliff Guindon

An alternative approach to terrestrial mitigation using a partnering approach.

HABITAT mitigation is a critical component in the Game Commission's land management projects throughout the commonwealth. Mitigation is performed for mining or construction impacts to wildlife habitat, and involves improvements to existing lands to benefit wildlife and enhance esthetics.

It is also an important environmental concern for the Pennsylvania Department of Transportation to provide for mitigation for new highway construction impacts, in recent years, though, finding suitable sites for habitat mitigation projects and then constructing the projects has been a major problem associated with highway planning.

The cost of implementing traditional habitat mitigation projects associated with highway construction can run four to 100 times the cost of implementing similar practices with Game Commission habitat restoration programs. These larger costs stem from many sources. Administrative costs associated with locating and acquiring suitable sites can be substantial. When suitable sites are located, construction costs are often inflated because extensive site preparation is required. For upland mitigation the traditional approach has involved planting shrubs and trees within the highway right-of-way, not the best place to attract wildlife. Because of the high cost of traditional mitigation and the minimal wildlife habitat value achieved, both the PGC and PennDOT began a joint effort to find a better solution.

The Elk Lick Partnering Project was



LMO CLIFF GUINDON supervises habitat improvement work done on Farm Game Project 150 as part of the Elk Lick Partnering Project.

proposed and implemented as a cost-effective way of replacing the lost habitat values resulting from the construction of the Meyersdale Bypass in Somerset County.

Historically, habitat restoration has been far more successful than creating habitat. Over 2,000 acres of wetlands have been restored in Pennsylvania over the past six years by the PGC and cooperating agencies in the Partners for Wildlife Program. Our experience with these efforts has shown that wetlands can be restored for about 1/100th of what it can cost to create them. When hydric soils are re-flooded, the seed bank of wetland plants is reactivated, and nearly every site is naturally re-vegetated at no additional cost. When plants are needed, we use species produced at our Howard Nursery.

Restoring degraded riparian areas has been equally successful. The PGC has restored more than 150 miles of streambank habitat through the Streambank Fencing Program. Working with farmers to remove livestock from streams and wetlands has proven to be a cost-effective way to improve water quality and restore some of the most valuable habitats in the state.

The PGC has also been active in restoring upland habitats on agricultural lands. Reintroduction of native grasses has been shown to be one of the most effective techniques for restoring grassland birds and farmland wildlife. With assistance from the Partners in Wildlife Program, Pheasants Forever and a Mellon grant, more than 5,000 acres of native grass and forb stands have been established in recent years. Border cuts are another upland habitat restoration practice implemented by the Commission to allow desirable food producing trees such as flowering dogwood, crabapple, hawthorns and witch-hazel to become established, and the cuts also create brushpiles for cover. The resulting soft transitional edge is used extensively by many species of wildlife.

Suitable lands for terrestrial mitigation were located near the Meyersdale Bypass within Farm-Game Project 150. This Farm-Game project

was established in 1948, and currently has 214 landowners with 39,487 acres. Surrounding the town of Meyersdale, FGP 150 is located in Brothersvalley, Summit, Elk Lick and Larimer Townships. The eastern edge is adjacent to 6,760-acre SGL 82.

Through formal written agreements between the property owners and the Game Commission, the landowners allow the public use of their lands for a variety of outdoor recreation activities such as hunting, fishing, bird watching and hiking. In return, the Game Commission provides habitat improvement work, increased law enforcement, nest boxes and *Game News*.

Many times habitat improvement efforts are hampered by shortages in personnel and budgetary constraints. Funding and manpower from outside sources is needed to address the demands for these types of habitat improvement projects.

The goal of the Elk Lick Partnering Project was to restore upland habitat values in excess of those lost in association with the construction of the Meyersdale Bypass, at a cost much less than implementing traditional PennDOT and FHWA (Federal Highway Administration) methods. Land enrolled in Farm Game Project 150 was chosen because it's within an impacted watershed area, and is only about one mile away from the bypass site, and it's in a public access program. See Table 1 for details on habitat improvements associated with the Elk Lick Partnering Project.

It should be noted that initial project goals were to erect seven miles of streambank fencing, plant 150 acres of native warm season grasses, and create 25 acres of shrubby borders, fencerows and shelterbelts. As can be seen in the table, much more was achieved due to the partnering approach.

STREAMBANK FENCING keeps livestock out of streams and is a cost-effective way to improve water quality and restore valuable habitat. Nearly 40,000 feet of fence was erected on FGP 150.



PennDOT Engineering District 9-0 and the FHWA provided \$105,000 to financially back most of the project, and then teamed with the Game Commission in enlisting a host of partners to achieve habitat improvement goals. Partners included: Somerset County Pheasants Forever, Tri-County Pheasants Forever, California University of Pennsylvania, Highpoint Ducks Unlimited, Natural Resources Conserva-

This project serves as an example of what can be accomplished when agencies and conservation groups work together. Other project areas will be identified for similar habitat work by this growing coalition of partners and volunteers.

Once the Elk Lick Partnering Project was underway, the interest, support and requests from other landowners and organizations that wanted to extend the project goals and objectives to their areas was overwhelming.

Somerset County was made eligible for the WHIP (Wildlife Habitat Incentive Program) funding under the 1996 Farm Bill as a direct result of this project. Approximately \$75,000 of \$457,000 available for Pennsylvania was applied to this type of habitat work in Somerset County in 1998 alone. Two of 14 planned statewide farm habitat restoration projects, funded by a Mellon grant, are un-

derway in Somerset County with habitat improvements similar to those done on the Elk Lick Project. Governor Tom Ridge has recently approved and forwarded to Washington DC the commonwealth's CREP proposal (Conservation Reserve Enhancement Program). As a direct result of the Elk Lick and spin-off projects, Somerset County is one of 19 counties eligible for this program, which will provide up to \$120 per acre for 10-year CREP easements on private lands.

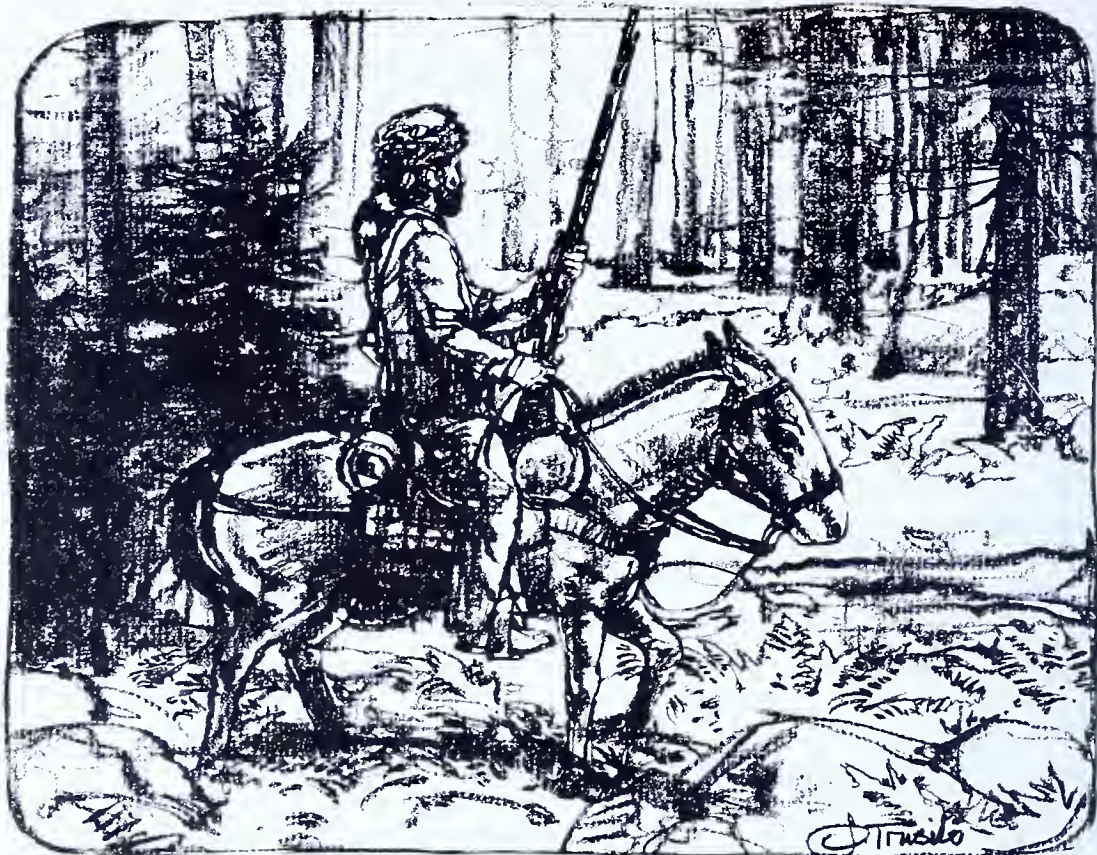
The Elk Lick Partnering Project has started an avalanche of habitat improvement in Somerset County. We hope this will serve as the catalyst for similar projects across the commonwealth. □

Table 1. Project accomplishments as of 10/8/98.

Native Warm Season Grass/Forbes Planting	231 acres
Border Cuts on FGP 150	44 acres
Brush Piles Constructed on FGP 150	10
Border Cuts on SGL 82	43 acres
Brush Piles Constructed on SGL 82	21
Apple Trees Planted	265
Streambank Fence (6-strand non-electric)	21,400 feet
Streambank Fence (2-strand electric)	18,350 feet
Bluebird Boxes Constructed and Erected	97
Kestrel Boxes Constructed and Erected	13
Bat Houses Constructed and Erected	14
Barn Owl Boxes Constructed and Erected	10
Wood Duck Boxes Constructed and Erected	12
Tree Seedlings Delivered to Landowners	17,000
10-Pound Bags Wildlife Food Plot Mix Planted	41
Corn/Sorghum Food Plots Planted	8 acres
Buckwheat Food Plot Planted	5 acres
Winter Wheat Food Plot Planted	8 acres

tion Service, U.S. Fish and Wildlife Service, National Fish and Wildlife Foundation, Somerset County Conservation District, PA Trappers Association, Trent/Bakersville Sportsmens Club, Dark Shade Beagle Club, and volunteers from the Somerset County Federation of Sportsmen's Clubs.

The Elk Lick Mitigation Project has also been a resounding success due to the efforts of PGC Farm Game Manager Roger Romesburg, the efforts of Food and Cover Corp members Jim Swink and Bob Truax, volunteer Greg Urban, PennDOT District 9-0 Environmental Unit and PGC Environmental Planning and Habitat Protection Division Chief Denver McDowell.



Muzzleloading for Gobblers

By Robert Pollock, Sr. as told to Connie Mertz

“I WALKED into the predawn blackness toting the 20-gauge flintlock made for me by my son. I had to walk only 300 yards to my neighbor’s land, where I was going to hunt, and on this morning I decided to let my ears do the listening before I did the calling. When it was light enough to see, I took my homemade wing-bone call and gave a few yelps. Not one, not two, but three gobblers immediately responded, from different directions. I had a dilemma. Which one should I try for? I set up for what I thought was the closest. After calling again, all three gobblers started coming in. I

couldn’t believe it. I didn’t know where to focus or what to expect from these lovesick birds.

Two soon appeared 50 yards away, and the third was closer, but I couldn’t see it because of the thick cover. My heart raced wildly and my ears throbbed with every beat. I didn’t get this excited when hunting deer. I gripped the 20-gauge muzzleloader and knew I had to wait until one of them came within 30 yards. I waited, wondering if I could successfully bag my first gobbler with a muzzleloader. Just as the moment of truth presented itself, a dog came running through the woods. The gobblers quickly disappeared. After the in-

truder had left the area, I again called, and although one of the gobblers responded, he never came any closer.”

Robert Pollock, Sr. has been hunting turkeys with a muzzleloader on a limited basis since 1975. In the last three years, however, he has hunted exclusively with his 20-gauge flintlock. It was in 1976 that the Danville resident bagged a hen turkey in the fall season with a 12-gauge caplock, and although his success rate through the years hasn’t been as good as he might like, he loves his sport.

“I have strict standards and I refuse to take a shot that may only injure any game I pursue. I’ve passed up many birds with my front loader that I could easily have taken with my modern shotgun, but a muzzleloader presents a greater challenge,” Pollock says.

His introduction to muzzleloading came in 1973 when he became involved in competitive shooting. The weekend shoots took him and his son, Robert Pollock, Jr., across Pennsylvania, and once a year they

attend the Eastern Rendezvous. In 1997 they both qualified for the Pennsylvania Flintlock Team and traveled to Kentucky, and they were privileged to win the annual Governor’s Cup Flintlock Rifle Match.

“I like to put a little sport into the sport, and I am constantly learning. For instance, I highly recommend using a decoy (safety procedures must be strictly adhered to) to bring the birds in closer. I used one for the first time last spring and it really worked.” He also enjoys scouting from the back of a mule. “It gives her exercise and I can travel greater distances. I’ve even ridden her into hunting areas, tied her to a tree, and then hunted.”

Though he has taken several deer with a muzzleloader since the late 1970s, he enjoys the challenge of hunting turkeys even more. “You have to be a very patient hunter if you hunt turkeys with a flintlock, but I would have it no other way.” □

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Scott
alpino

A wildlife diary contains many hidden lessons about the lives of animals. For a year I documented observations made during my many visits to the Middle Creek Wildlife Management Area. Now, this diary enables me to take a mental vacation whenever I review its pages, and many of the observations I described in a few sentences bring back memories of wildlife encounters. The images remind me that when it comes to animals, they can't tell me, so . . .

They Show Me

By Robert H. Checket

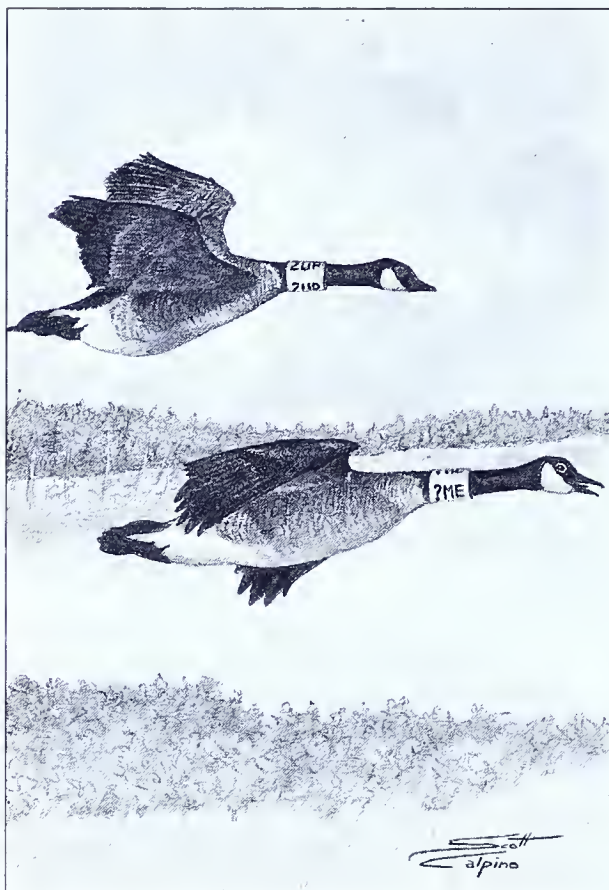
THE DATE is April 1, 1996. However, this story is not an April Fools Day joke. For on that day I met two good friends while visiting Middle Creek. We never really formally greeted each other. In fact, we never exchanged a handshake or even a nod of recognition. But the friendship was there, at least on my part. I could feel it.

Meet my two friends, Kweschen Mark Em-ee (?ME) and Two You-Pee (2UP). You're correct if you're thinking that they're not human friends. They are Canada geese. Today, for the first time, I carefully examined a honker through my binoculars and noticed that certain ones have tags around their necks. The U.S. Fish and Wildlife Service, in particular the Bird Banding Laboratory, has developed a technique of naming geese (tagging them with a 3-character "name") to allow the casual observer to participate in their tracking. But I've found that giving a goose a name also gives it a unique personality.

I've been touring Middle Creek (SGL 46) for years and could not believe that I'd never noticed these tags. Perhaps I did, but their significance didn't register in my mind. The dull, white neck collar with three black characters blends so well with the natural colors of a Canada goose that the collars can be difficult to detect. Some of the other collars were obvious — a vivid

yellow one or another made of a very stiff plastic. (The yellow collars denote a "nuisance" goose that has been transplanted from the area where it became a nuisance.) However, ?ME and 2UP were sporting white collars with three dark characters. They were not nuisance geese.

I entered Middle Creek that morning via Chapel Drive, just south of Kleinfeltersville on Route 897. Upon completing the turn into the project, a little propagation pond is situated off to the left. Scanning the pond rather quickly, I noticed only two geese and that they were drifting slowly, almost motionless, near the opposite shore. They were apparently unconcerned by my presence, so I checked them out thoroughly through my binoculars. To my surprise, I saw that each had a collar around its neck. Their names were Kweschen Mark Em-ee (?ME) and Two You-Pee (2UP). For fun, I wrote down their names on a piece of scrap paper, so I could check on them during future visits. As I continued driving through the project, I noticed others with the same type of easily overlooked neckband. By the end of that day, my scrap paper, with the help of a 200mm lens on my camera and new



THE U.S. Fish and Wildlife Service, in particular the Bird Banding Laboratory, has developed a technique of naming geese (tagging them with a 3-character "name") to allow the casual observer to participate in their tracking.

binoculars, had grown into a diary. I was bit. I had the fever, goose watching fever that is.

Kweschen Mark Em-ee and Two You-Pee became my adopted family that morning. An avid waterfowl hunter, it wasn't until that spring day that I discovered just how interesting the lifestyle of a honker can be. By April 6 it became obvious they were going to nest on the opposite shore, a mere 30 yards away, at a location where I could easily observe them from the comfort of my vehicle. I'd have excellent opportunities for more diary entries plus spectacular camera shots. I couldn't wait.

April 8, 1996, was a sunny, almost cloudless day. Entering Chapel Drive,

I pulled off and looked across the pond through the open window. Although I couldn't clearly see her neckband, I knew that Kweschen Mark Em-ee was sitting on the nest. I looked through my binoculars and she didn't flinch. She didn't even blink an eye. The reason I can say for certain it was ?ME was because 2UP was swimming nearby, keeping watch over his expectant mate.

Heavy rain pounded the area on April 16 but ?ME sat tight on her nest, so I'm certain the eggs were in there and needed protection from the elements. On Monday, the 22nd, I went to Middle Creek to greet my adopted family on Earth Day. There was nothing new to report in my diary, so I just watched and waited. My diary for that day lists sightings of bluebirds, tree swallows, coots, pheasants (ringneck and Sichuan), chipmunks, squirrels and ground-hogs.

A drizzle was falling on April 30, but it didn't dampen my enthusiasm. When I arrived I saw that one of the geese was doing nest-sitting duty. Even though I focused and refocused

my binoculars, and despite squinting, I couldn't identify the goose. The bird was on the nest, facing away from me, and all I could see was a feathered rear end with a head tucked under a wing, probably snoozing. I guessed it was ?ME.

Both geese seemed to be only slightly disturbed by my presence, but then, as I talked to them, my voice seemed to have a soothing effect. It calmed them, especially 2UP. He was no longer visibly annoyed. They sensed that I posed no threat.

On May 8, 1996, after a hard day at work, I decided to relax by checking on my geese. As I turned off Route 897 onto Chapel Drive, I was greeted with a glorious sight on the pond. ?ME was in the lead and 2UP was bringing up the rear of a convoy. In the middle were four of the cutest,

fuzziest, yellow critters I ever saw. They were heading in my direction, and they must have known I'd be there with my camera to take a family portrait, because they slowly swam from left to right and back again. I couldn't get enough of the show. I had followed this family from courtship to nesting to the goslings' first days on the water.

My next diary entry tells me that two unmarked geese were "baby sitting" (my interpretation) because approximately 45 goslings were at the area where ?ME and 2UP raised their family. It was quite a sight. No organization, just 45 little ones bobbing on the water, usually facing the same direction, many times not, being supervised by only two adults. It was mass confusion. I'm guessing that their parents needed some rest and relaxation from the rigors of family rearing. Unfortunately, I forgot my camera, so my diary entry is the only evidence

I have to refresh my memory. But I'm glad I was there for that event. It was a form of animal behavior I had never experienced and one I enjoy sharing with friends.

I visited Middle Creek again on Mother's Day, May 12, but nobody was home. I couldn't imagine where they might have gone. I couldn't return for a week, but thoughts of them would drift through my mind on a daily basis. I dropped in the next Sunday, but nobody was home again. More days without knowing if something was wrong, wondering if something had happened. Did too much human pressure frighten them away? After all, if I knew they were there, so did many others. Maybe it was an inquisitive raccoon or fox. What about a snapping turtle? (I've heard that a snapper can systematically wipe out an entire family.) Maybe they just moved to a safer neighborhood.

The next time I saw ?ME and 2UP was July 4, 1996. No longer by each other's side, they were part of a gaggle of about 50 other geese. The adults and goslings, now adorned in drab gray-brown fuzz, were all in the group. I sat quietly in my truck and saw them gather on the far shore of the little pond. They kept their distance from me and an eye on me. I felt unwelcome, an intruder. They swam about aimlessly, every now and then thrusting their heads under water in search of food. But they were fidgety.

Had I known that I'd never see ?ME and 2UP again in 1996, I would have stayed longer. My

KWESCHEN MARK EM-EE was accompanied by a new friend, an unmarked mate. Did that mean she was no longer waiting for 2UP?



trips to Middle Creek continued, and the months flew by, but the geese were becoming more wary. No longer could I pull my vehicle next to a group of geese; they wouldn't allow it. They'd scatter, obviously irritated, running away and honking with outstretched necks. I could see their personalities changing right before my eyes. Pairs with young joined into large groups that shied away from the road. The neckbands became difficult to detect, much less decipher. My diary entries about the geese dwindled because I could no longer get a fix on their names. There was simply too much distance between me and them, and they aimed to keep it that way.

After all my enjoyable times with the geese, learning their names, watching them grow, talking to them and understanding their ways, I still felt a desire to participate in the early Canada goose season at Middle Creek. Three friends and I harvested three geese from blind 35 on September 9, 1996. Aldo Leopold, noted ecologist/environmentalist, would have termed the harvest as God's meat. I'm not hardhearted. Hunting is simply that part of the outdoor experience that some people will never understand. A tender wild goose breast, when smothered with a mushroom and onion gravy, surrounded by mashed potatoes and peas is a meal without equal. The year ended, but it left me with a new respect for the Bird Banding Laboratory because of the difficulty of data collection.

By March 13, 1997, I had visited

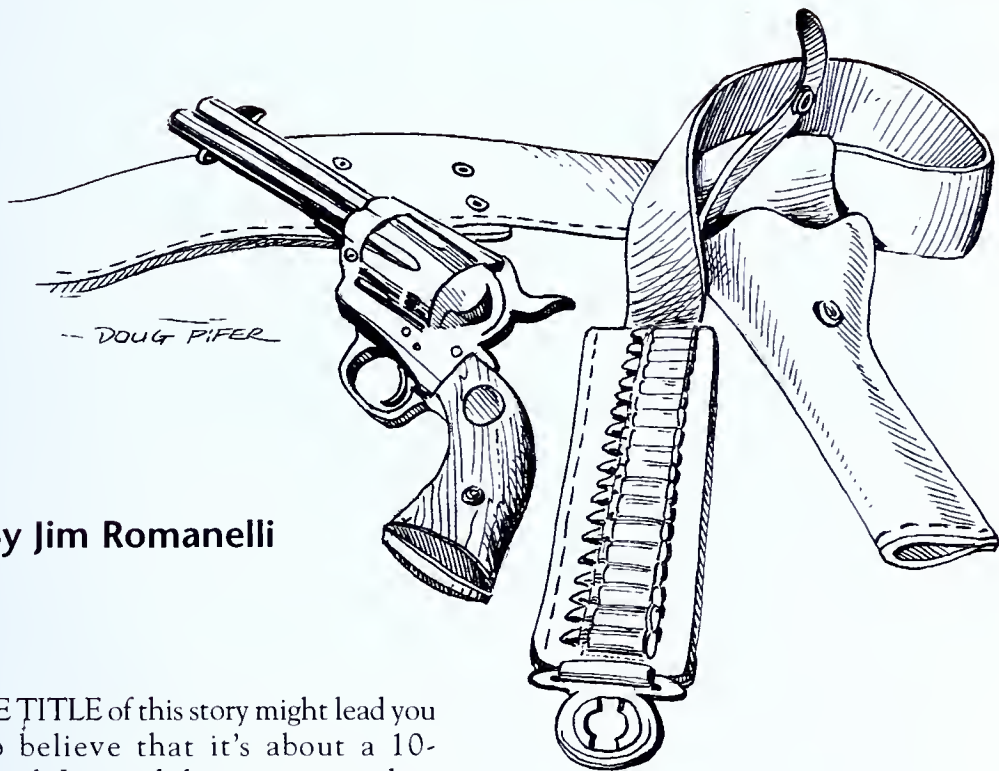
Middle Creek 14 times. I had logged 44 collars in my diary by that time, and had spent countless hours observing and listening to the tundra swans and snow geese. However, March 13 would prove to be a memorable day. I met an old friend.

As usual I traveled through Kleinfeltersville and entered the project via Chapel Drive. At the pond I brought my Blazer to a stop when, off to the right, seven geese were feeding. One of the group was ?ME. I mentally greeted her and smiled, even though she walked away and ignored me. I wondered where she had been for the past eight months. I wondered what she had been doing. She looked content as she dug in the wet sod in search of roots, nibbled at last year's grasses or ate anything that would sustain her until her favorite submerged greens became available. Also in the group was another marked goose, 1=3, but 2UP was nowhere to be found. I wondered if he had survived the hunting season. Maybe a predator got him, although an adult goose is a formidable opponent for any animal. I stayed for about 20 minutes, but never saw him. A hint of sadness came over me as I pondered his fate.

On April 1, 1997 — a year to the day since I first met Kweschen Mark Em-ee and Two You-Pee — ?ME was spotted with a new friend, an unmarked mate: Did that mean she was no longer waiting for 2UP?

Although it's often said that Canada geese mate for life, the truth is that although they form permanent pair bonds, should a mate be lost for any reason, a new one will be readily accepted. And because this Canada goose can't tell me that, she is going to show me. It's all going to be in my diary. □

The One That Got Away



By Jim Romanelli

THE TITLE of this story might lead you to believe that it's about a 10-point buck I missed three times standing not 20 yards away, or about fast breaking grouse that managed to fly through both my patterns.

I don't mean to disappoint you, but this is about the laments of a fellow sportsman who wishes he had back a firearm he had dreamed of for years, finally found and bought, but then, regretfully, let go.

As a young boy I thoroughly enjoyed the TV Westerns of the late '50s and early '60s. Every show seemed to be a simple matter of the good guys with their code of ethics always defeating the bad guys with their immoralities. The men in white stood up for what they believed, they did little talking, and when all else failed, it was their Colt Single Action Army revolvers that set "right over might;" and they never seemed to miss.

My intrigue with those single actions

never waned throughout the years, and when I finally turned 21, I searched all the local gun shops for one. I wanted it in the .45 Long Colt caliber with a $4\frac{5}{8}$ -inch barrel. But as hard as I looked, I found only one Colt.

The case coloring of the frame was beautiful, the grip, cylinder and barrel had that deep blue luster, the caliber was the .45 Long Colt, but the barrel was $5\frac{1}{2}$ inches. But when I eared back that hammer and heard it spell "Colt," that did it. I finally had a Colt and I wasn't going to let it go, no matter what the barrel length.

I plunked down three weeks of life-guard pay (\$300) and after the waiting period, walked out with my Colt, a box of ammunition, and a belted

holster that was for a 7½-inch barrel (it was the only left-handed one they had). I don't mind saying that I felt like one of those cowboys ready to defeat evil. I went to a local farm where the farmer was kind enough to let me shoot, to teach those law-breaking tin cans a lesson.

I loaded my Colt with five rounds (left the sixth chamber empty for the hammer), faced up to those six tin varmints on a hillside, and walked off 10 paces before I turned around for the showdown. Using live ammunition, I knew better than to try any of the fancy Hollywood stunts. I cleared leather, leveled the gun and fired five rounds. And after the smoke cleared and the dust settled, I thanked God for the fact that those tin hombres weren't the Dalton gang shooting back, because I would have been pushing up daisies for sure; I missed every one of them.

Prior to this moment of humility, my experience with handguns consisted of 12 rounds from a Colt Scout in 22 caliber seven years earlier, and I didn't hit anything then, either. I guess I fooled myself into thinking that age brought on inherent skill. I neglected to incorporate one main factor: practice, practice and more practice.

So, it was time to start from

scratch. I emptied the spent cases, reloaded, held the revolver with both hands at arms' length and at eye level, and concentrated on the sights. I slowly fired three shots and missed again, so I cut the distance to only five yards and tried once more. My first round was a little low but managed to disturb the earth enough to allow the can to fall. I aimed a little higher on the next shot and kicked up dirt just above the can.

I was surprised at how just the slightest little movement of the sights would move the impact of that bullet more than I wanted, so I reloaded and split the difference from the two previous sightings and made sure my sight picture and trigger squeeze were perfect. At the shot the next target went flying. Well, now, that was a little better, especially for my damaged ego.

This handgunning wasn't as easy as I was lead to believe by my old TV heroes. As a matter of fact it seemed that it would take quite a bit of work and discipline. So for the better part of the next two hours, and 40 rounds later, I learned how to use those sights along with a proper trigger pull at ranges from 10 yards out to 50. By the end of that session I was hitting about 75 percent of the cans at 20 yards, but as I began increasing the distance out to 50 yards, my errors became more evident. I soon learned that hip shooting was best left to Hollywood.

After that episode I knew that more practice was needed, so I bought a set of reloading dies, primers, a 5-pound can of Unique powder and four boxes (500 in a box) of 250-grain hard cast semi-wadcutter lead bullets. For the rest of the summer I practiced a couple of hours twice a week, and after those 2,000 rounds of reloads, I found that anything the size of a pie plate within 50 yards was a sure hit. If I balanced the sights and used a crisp trigger pull, I could hit a gallon jug at 100 yards three out of five times and come pretty



close the other two times. I also found that at close range (5-10 yards) I was shooting by feel rather than bearing down on my sights. I was able to hit a target about a foot in diameter pretty consistently. If Hollywood could only see me now.

One time my friend Jeff and I had set up cans to shoot at with our .22 rifles, and as usual, I brought along my Colt. After we set them up and backed off about 50 yards, Jeff turned and said, "Why don't you try that Colt from here?" Well, I guess my ego got the better of me, because I turned around, pulled the Colt, took aim and touched off a shot. One of those cans took a direct hit and tumbled (it wasn't the one I was aiming at). I looked at Jeff, who had his mouth open in complete disbelief, and nonchalantly holstered the gun and said, "There you go. Now, let's try these rifles."

I also enjoyed taking that pistol along on groundhog hunts. At times, after I took a couple of whistle pigs with the rifle, I'd pull out my Colt, get into a sitting position, extend my arms across my knees and give it a whirl. I even managed to bag a couple of them out to about 100 yards (I won't tell you how many times I missed) but beyond that, it became iffy due to the rainbow trajectory of that 250-grain bullet at about 900 fps.

Before I knew it, the end of the summer was near and college would begin in just a couple days. I cleaned my firearms and began packing them away when I got a call

from my favorite gun shop. The owner told me that in a couple of weeks he was getting a used Colt Single Action Army in .45 Long Colt with a 4 ⁵/₈-inch barrel and asked if I was still interested. I said that I'd bring down my 5 ¹/₂-inch barrel model to sell and then buy the other one when it came in.

With a little regret I put it up for sale. I asked the shop owner to call me at school when it sold and to let me know when the other model came in. Well, in five days I got the call that mine had sold, and that



he would let me know when the other Colt came in. A week later the owner called to say that the widow who was going to bring in the gun had, instead, given it to her nephew. I was without any handgun.

I had the shop owner mail me a check for my gun and I planned to save it for another Colt. But as things turned out, that money was used for school, and with the price of Colt Single Action Army revolvers constantly increasing, I never had the chance at one again. I still hope to one day find one within my budget, but until then, all I can do is think of the one that got away. □



Special Gift

By Terry Brady

Thanks, guys, for the early Christmas gift

To:
Richard Belding
Land Management Officer
Waynesburg, Greene County

Tim Flanigan
Wildlife Conservation Officer
Bedford, Bedford County

As the days wind down in a year marked by so many sour tunes, I thought it might be a good time to send a note of Christmas cheer your way. It seems 1998 will go down as the year when just about everyone joined in bashing the men and women who wear the green of the Pennsylvania Game Commission:

Some politicians in Harrisburg

seemed to delight in dragging their feet on passing a much-needed hunting license fee increase. As a result, land acquisition programs and law enforcement efforts were hampered.

A Harrisburg reporter and his newspaper chain embarked on what seemed to be an unholy war. Focusing on what appeared to be some questionable tactics by a few deputies, they were able to make your job harder, and blacken the name of those who wear the uniform.

Farmers, foresters and landowners all say there are too many deer; hunters say there are not enough. Meanwhile, friends and acquaintances not afraid to get away from car and cabin tell me they are seeing plenty of deer.

But, of course, you already know the

many faces of the Grinches that threatened to steal your Christmas. In this season of giving, I think it only proper that some of us send a little thanks your way. For it was you, your colleagues, and the commission who spread some early Yuletide cheer for this father and his son to savor and remember for years to come. Christmas came early for me this year, but not in some crowded department store, or the normal wrappings and trapings of the holiday season.

My gift was found tucked away under withered corn stalks crowded with timothy grass. There was no snow on the state game lands that stretched for hundreds of acres, but the heavy frost of a late November morning set its own tone for the season. The gift took flight in an explosion of white, purple, bronze and gold. And it fell before a youngster and a young dog who had never seen one before.

Together, a 16-year-old hunter and a 5-month-old Brittany learned the ways of the ring-necked pheasant. They would follow quickly as the bird legged it out across clover field, and in and out of swamp. Twice the dog would point; twice its quarry moved on. They pursued until the bird ran out of running room.

A devilish cackling, crashing corn stalks and long, streaming tail threatened to unnerve both dog and gunner, but the shot was true. Together hunter and dog collected the gift of that late November morn. The young gunner felt the weight of his first pheasant in his game bag; the pup remembered the rank aroma of the bird in his nostrils. Together they will be a tough team on pheasants.

Oh, I know, they were stocked birds. Released by the commission to supply hunters both young and old a glimpse of how pheasant hunting used to be. And I know you two did not place those birds on

those Union County game lands. I know the sprawling tract is not even close to your jurisdictions, but that does not matter. Because, closer to home, both of you have been committed for decades to helping others share memories similar to mine.

In those soggy Union County weed fields, I was blessed to see a wing shooter and a bird dog come of age together. If only for a few hours, that circle of good friends, good dogs and good cover was re-joined. I was many miles and a lot of years away from the pheasant hunting of my youth, but at least my son was getting a taste of what so many of us enjoyed and took for granted.

You both know the bond a bird and dog can forge between parent and offspring, and I thank the commission for supplying the land and the bird, and you two for supplying the dog. By the end of the day, at least eight cockbirds would be pointed or flushed by the dog who had never seen a pheasant before. He would retrieve dead birds and run down cripples. And he would leave me forever thankful that I bought a pup from the litter you two bred.

Dick: He has all the right traits of his mother. The heart to keep going, the build to crash brush, and the vacuum-cleaner nose to find game.

Tim: You supplied the sire, and in his offspring I see the promise you foretold. I also see a disposition that says this dog will be a pleasure to own.

I thank you both for steering this dog our way. More importantly, I thank you and others in the commission for assuring he will have the chance to continue doing what he does best. □



The Ruffed Grouse Society

By Michael E. Mulvaney

AS MOST Pennsylvania sportsmen know, the ruffed grouse is not only a popular gamebird species, it's also our official state bird. Therefore, it might not be ironic. It might not even be coincidental. But it is certainly appropriate that the Ruffed Grouse Society (RGS) — our nation's leading outdoor organization devoted exclusively to grouse and woodcock preservation — is headquartered right here in the Keystone State.

The RGS has long been dedicated to habitat improvement for both the ruffed grouse and its little sidekick, the American woodcock. Founded in 1961 by three upland gunning enthusiasts from Monterey, Virginia, this international, nonprofit organization includes thousands of members within dozens of chapters throughout the United States and Canada.

According to Ron Burkert, Associate Executive Director, the society has a staff of 20 full-

time employees and is actively involved in 49 states. Here in Pennsylvania, with more than 3,100 members and 21 separate chapters, the Keystone State can boast of having the second largest membership (behind Wisconsin) in the nation.

According to Burkert, the New England States, along with the upper Mid-West and Appalachian Region, are considered the prime grouse hunting hotspots in the country. Consequently, because of Pennsylvania's close proximity to these locations, it was decided in the late 1960s to relocate the society's headquarters just outside of Pittsburgh.

Essentially, the mission of the society is simple: To improve forest habitat for both grouse and woodcock. The society recognizes that encroaching human civilization is the number one problem facing all small game species. Grouse and woodcock both require extensive second-growth forests in order to survive. And it is to this end that the RGS is dedicated.

On the national scene, the RGS financially supports various research studies that address habitat improvement. For instance, regarding its Management Area Program (MAP), the society has spent more than \$1.4 million in support of 270 different projects in 26 states.

The RGS also



coordinates with conservation professionals in providing educational programs and forest management workshops for wildlife managers interested in forest habitat. Additionally, the society's staff of wildlife specialists provides private landowners with free information about forest habitat improvement.

Here in Pennsylvania, the society has long been active in improving habitat on both public and private Farm Game Project lands. For instance, on the Erie National Wildlife Refuge, the society has supported the maintenance of old fields for wildlife habitat.

In Washington County, the society is currently conducting a study to determine a given area's potential for forest improvement. In Fayette County, a study of the Quebec Run Project is being conducted to determine woodcock usage and habitat opportunities.

In addition, the RGS is presently supporting the Game Commission in Bedford County by helping to plant conifers on established clearcut site locations. Timber harvesting and aspen maintenance is being conducted in Elk County. While in Armstrong County, the society is working to establish aspen and other important vegetation.

Probably the most significant contribution (certainly the most interesting) has been the "mechanical vegetation cutter." Since 1988, with financial support from the society, the Game Commission has used the cutter — a contraption that resembles a giant log skidder — to help cut more than 3,000 acres of brush and trees on more than 60 different game lands. Future plans call for continued cutting at these same locations, particularly along vital edge cover, which is so important in the maintenance

of quality grouse habitat.

Funding for the society's work stems from donations, grants, sponsorship programs and through the sale of stamps and prints. More importantly, more than half the society's financing is derived from sportsmens' banquet programs involving fund raising dinners coordinated by members. It is also the reason why membership is so important. Anyone can become a RGS

member, and you don't have to be a philanthropist in order to join. The cost of a tax deductible, 1-year membership is only \$20.

For information on becoming a member, contact: The Ruffed Grouse Society, Department 63, 451 McCormick Road, Coraopolis, PA 15108-9327. For

your donation you'll re-

ceive a subscription to the

Ruffed Grouse Society Magazine. This 4-color magazine is published five times a year and is full of information about grouse, woodcock, bird dogs, upland gunning and environmental concerns. In addition, you'll also receive a decal for your vehicle along with periodic notices concerning banquets and other outdoor-related activities. Of greater importance, though, you'll receive the satisfaction of knowing you're helping to preserve two of our state's most important gamebird species.

So, the next time you flush a brace of grouse from the edge of a grape tangle, or your setter pins down a timberdoodle in an alder run, remember the Ruffed Grouse Society. The effort of this worthy organization helps in making it all possible. □

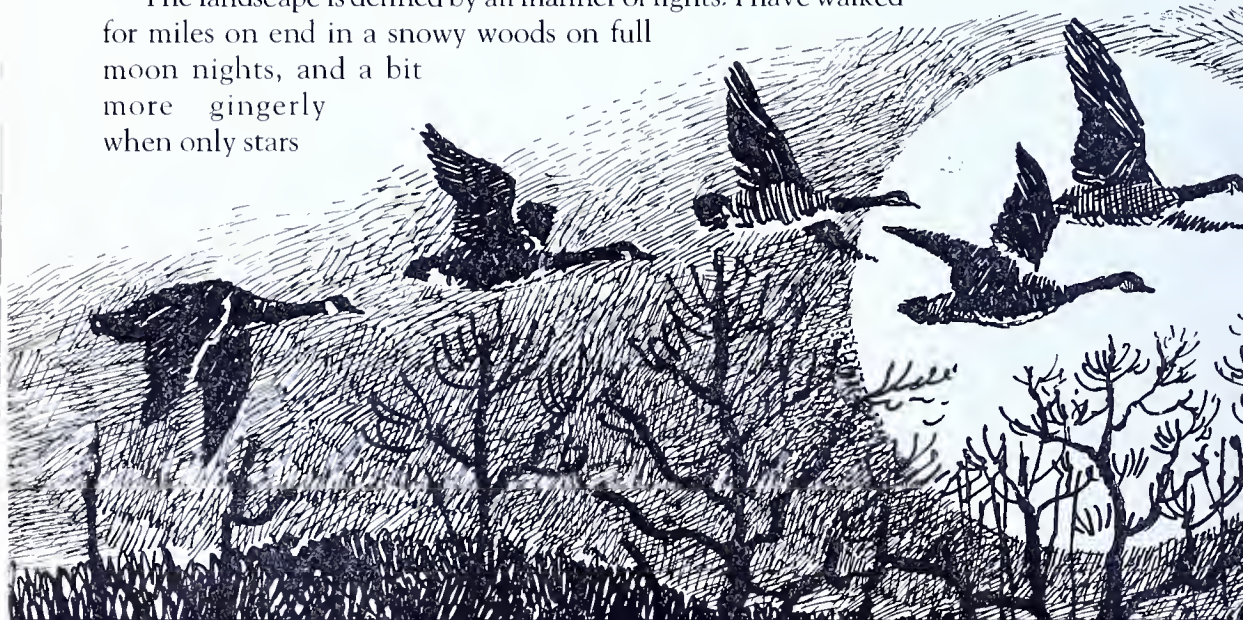


Chiaroscuro

THIS BEAUTIFUL WORD, with musical syllables that flow from the tongue, sounds even better when the fourth syllable is emphasized by spreading the drawn fingertips on one hand apart like flower petals opening. Say it with your best Italian accent: kee-a-rous-kyourrrr-o. Chiaroscuro, from the Italian, chiaro, bright + oscuro, dark, is the interplay of light and shadow on a surface or in a painting. In art school I studied traditional, old master painting techniques that required a complete understanding of what takes place when varying intensities of light fall upon different forms. Through hundreds of drawings and paintings of objects, landscapes, figures and portraits we struggled to translate the intricate disposition of light on three-dimensional forms to two-dimensional paper and canvas. Artists, photographers and film makers must be able to skillfully direct and manipulate artificial light, or use natural light to set a mood or ignite a certain emotion. The study of light in the outdoors is as intriguing as any other element of natural history. Its sometimes manic progression throughout day and night, its changing character with each season, and the various sources of illumination have been the subjects of artists and writers for centuries.

The vernal equinox occurs on March 20, when there is an equal amount of daylight and night. From that time, the amount of daylight increases then decreases until the autumn equinox on September 23, when an equal amount will occur again. Daylight will decrease until December 22, the "shortest" day of the year, then swing back the other way. Those who spend much time outdoors year-round, or who rely on natural light to perform their daily tasks, are most aware of these seasonal swings. Farmers probably know more about this than anyone, but I know that I can paint under the big skylights in my studio for more than 13 hours in the long days of summer, but only half that time in midwinter. Even though our society rushes on through day and night, we remain creatures of daylight. Deprived of light we may experience physical ailments or become depressed. I once knew a coal miner who would sit on a grassy embankment every day at sundown and play melancholy tunes on his accordion as he watched the weight of dusk press the sun from the sky. I often thought how those few hours of daylight were especially precious to him as he played serenades to the dying day.

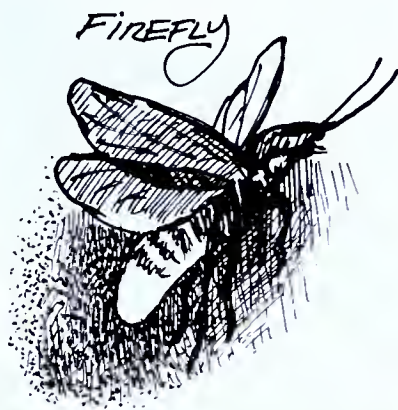
The landscape is defined by all manner of lights. I have walked for miles on end in a snowy woods on full moon nights, and a bit more gingerly when only stars



PENN'S WOODS

SKETCHBOOK

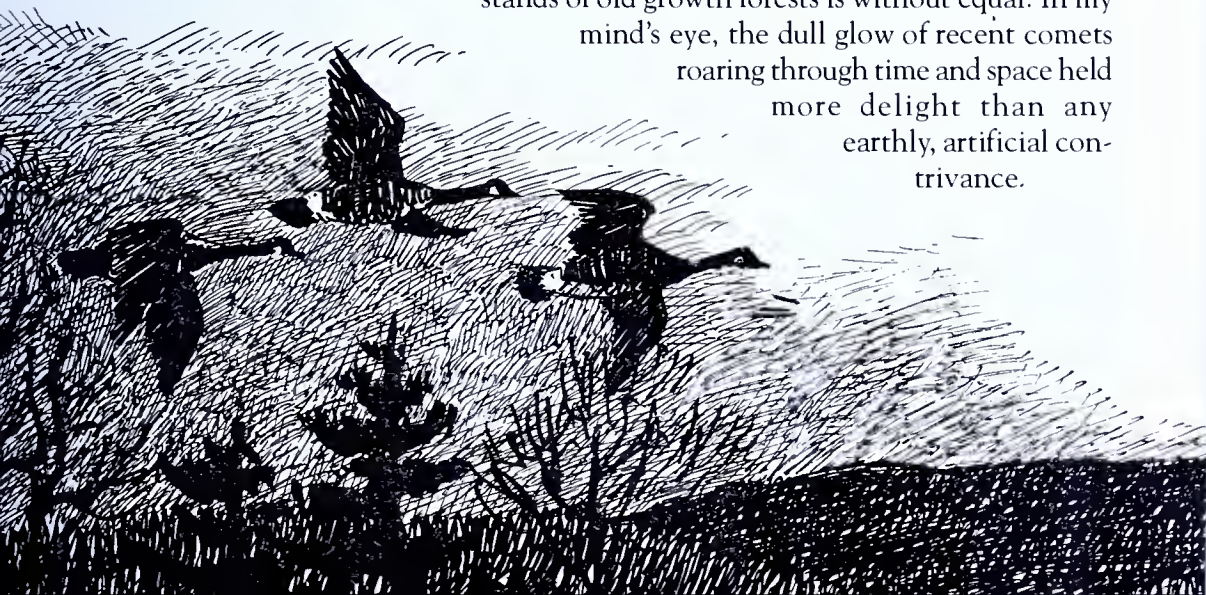
by
Bob Sopchick

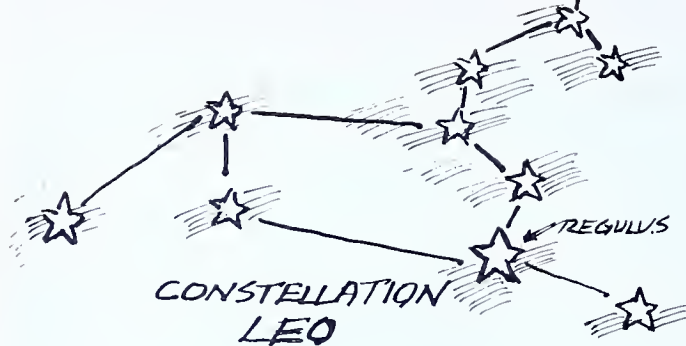


lit the way. I've followed a trail of light through the dark woods, a foxfire trail made by my hunting partner kicking up leaves as he walked in front of me. The red glow of the setting sun on pale oaks is rivaled by the fractured prisms of a pink sun rising through ice covered branches. The light I long to see the most, though, is the first gray light on the opening day of deer season. I enjoy the distant strobe of heat lightning on sweet scented summer nights, and even the blinding flashes of blue-white lightning in an all out thunder storm. I still delight in summer fields illuminated by swarms of fireflies and always catch one and let it go for good luck. What light evokes contemplation more than the glowing coals of a campfire? What light is more welcome than the distant yellow rectangle of a camp window barely discernible through the driving sting of sleet and snow?

Half of what I have learned of light and shadow, of chiarascuro, came from the atelier workshops of modern masters, museums, and formal instruction; the other from studying the movements of light and shadow on the faces of these old hills. I've sketched some splendid stone relief carvings of ancient Egyptian deities, but found the prehistoric sandstone escarpments of Penn's Woods bathed in winter light to be more compelling. I've admired the way architects have used light so ingeniously in old cathedrals and

modern museums, but the shafts of light burning through the misty stands of old growth forests is without equal. In my mind's eye, the dull glow of recent comets roaring through time and space held more delight than any earthly, artificial contrivance.





A BLUE MOON is the second full moon in the same month. About three percent of all full moons are blue moons. On March 31, 1999, the second blue moon of the year will rise, the first having occurred two months previous on January 31. A double blue moon year is quite rare, the previous one in 1961. Usually, it happens every 18 to 19

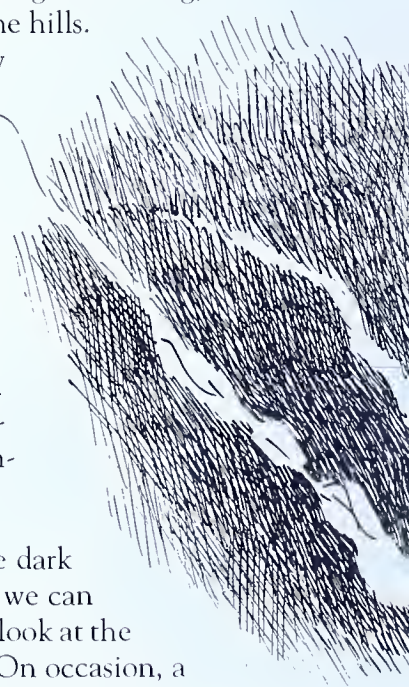
years, but a leap year disrupted the cycle due in 1980.

The term "blue moon" has a complicated history with several meanings. Folklorists have traced it back more than 400 years, when blue moon was a reference to something absurd, then later, to that which never could happen. In rare instances the moon did appear blue due to volcanoes, monsoons or fires and the term was literal. The phrase "once in a blue moon" evolved shortly after, describing anything that occurred infrequently. Blue moons also appeared in several songs as symbols of sadness and loneliness. The term as it is used for the second full moon in a month originated in Maine sometime in the 19th century, but not published until 1943 in *Sky & Telescope* magazine. It finally came into wide usage when wire services carried the double full moon of May 1988 to media around the world.

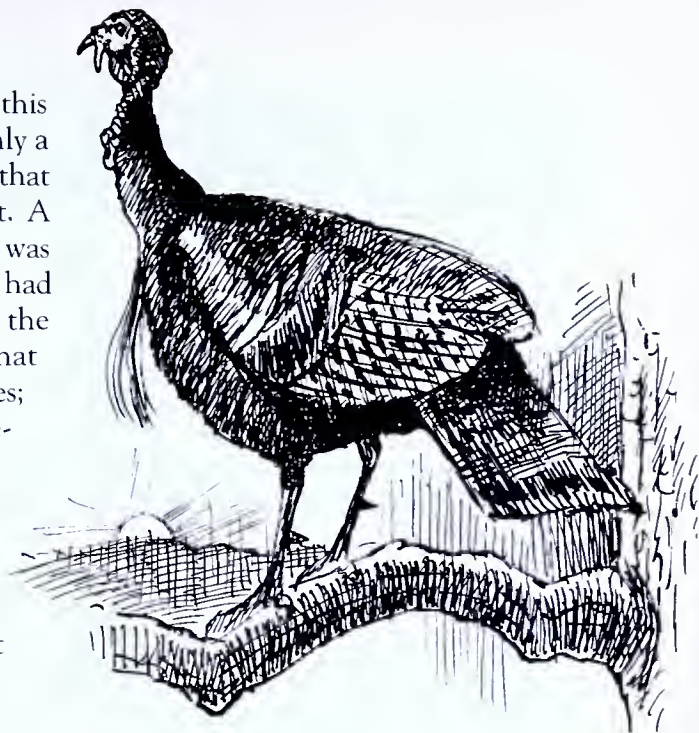
At times, the moon may take on subtle tones of color. April's full moon is also called the Pink Moon. My favorite is a big yellow moon that looms large on the horizon, a phenomenon called "moon illusion." The first words I wrote this year were penned after a long moonlight walk on the first day of the year: A great full moon rises, warmfaced and bonecolored, above the etched lines of tree branches. Somewhere in the night I hear goose music. As always, I hear the Canada geese long before I see them. Their ragged line passes in front of the moon, black wings rising and falling, blacker than the winter trees or the deeper shadows of the hills. Blacker even than the velvet sky. It seems their voices fly before them, as if they are following some phantom piper who will lead them to the comfort of dark water.

The English poet Percy Bysshe Shelley (1792-1822) described the moon as "Wandering companionless, among the stars that have a different birth." Fine words, but a bit off, I'm afraid. The moon has long been companion to the billions of eyes that have watched it, contemplated it, since time immemorial. So compelled were we to know this face better, that it was only a century and a half after Shelley was gone that we set foot on that "ever-changing, joyless eye that finds no object worth its constancy."

SINCE EARLIEST TIMES, hunters have waited in the dark until first light for the hunt to begin. During that time, we can only think and hope or dream antique dreams. Often, we look at the rivers of stars or complete the circle of a horned moon. On occasion, a meteor or two burns like a white hot charge traveling through a section of wire, and we believe them as portents of good fortune. Last November the Leonid meteors were especially spectacular. They poured forth from the direction of the



constellation Leo, and are named after this point of origin, or radiant. I witnessed only a few before clouds moved in, but saw one that burned blue-white like a welder's light. A friend hunting in Missouri at that time, was in his treestand long before sunrise. He had seen meteors before, but never expected the dazzling show of lights he witnessed that morning, like dozens of falling distress flares; green, blue, yellow, orange, red. These meteors are the debris of the Comet Tempel-Tuttle. If you missed the show in 1998, then watch for it again on November 18 of this year, and on November 17 in 2000. Mark this on your calendar now. If you miss these dates you'll have to wait 33 more years until it happens again.

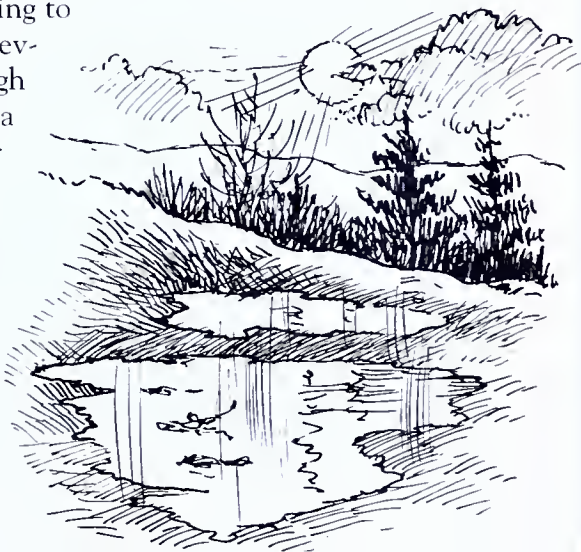


ENGLISH SCHOLAR and writer Edward Fitzgerald is best noted for his 1859 translation the Rubaiyat of Omar Khayyam. Every turkey hunter out there will appreciate and fully understand the first lines of this work: Wake! For the Sun behind yon Eastern height Has chased the Session of the Stars from Night; And to the field of Heav'n ascending, strikes The Sultan's Turret with a Shaft of Light.

The turkey hunter could further translate Fitzgerald's words to describe the way the sun peeps up over the ridge and the first rays of sunlight strikes the big oak where that bearded sultan has been gobbling since first light. I've seen this a time or two while scouting before spring gobbler season, and I've seen flocks of turkeys silhouetted in the last light of day, but one thing I've always wanted to see is a longbeard on roost silhouetted by a full moon.

Long ago, in middle school, I recall having to memorize and recite Part One of Samuel Taylor Coleridge's wonderful tale, "The Rime of the Ancient Mariner." After the mariner slays the good omen bird, an albatross, their ship is becalmed at sea, "As idle as a painted ship upon a painted ocean."

Like the becalmed mariner and his shipmates, I sit on a rock this March morning, looking down on a shining sea of rhododendron. Nothing moves, not bird or squirrel, or deer. The only sounds are the creaks and croaks of sentinel ravens. Becalmed, I sit and rest after a long morning of trying to locate some gobblers. A breeze stirs me from my reverie and I move higher up the mountain even though dark clouds move in. I unpack my poncho just as a drenching, cold rain washes the shadow of winter from the woods. The showers pass quickly, and I move out into a clearing to warm up in the sun. A group of black boulders steam slowly in the brilliant light, and from a distance the wisps of rising steam are not unlike the spectral crew that stood the deck of the mariner's ship under a "bloody sun, no bigger than the moon," that beat down from out of "a hot and copper sky."





FIELD NOTES



What's Good for the Goose is...

TRAINING SCHOOL — One of my field training officers told me to be careful with my Field Note topics while under his supervision. He quickly mentioned, though, that Field Notes about me were fair game.

— TRAINEE ROSE LUCIANE, HARRISBURG

Hope it Wasn't Santa's

MONTGOMERY — Deputy Perry Schultz picked up a roadkilled buck last December that had only one long antler and still covered in velvet.

— WCO CHRISTOPHER B. GRUDI, COLLEGEVILLE



Just Shakin' Off the Rust

ELK — On the first day of bear season I checked a hunter who was stooped over due to arthritis. I told the 89-year-old man that I thought it was great that he was still out hunting at his age, but I asked him how he expected to get a bear out of the woods if he shot one. "Sonny," he replied, "I have no intention of shooting a bear. This rifle is almost as old as I am, and I'm just getting us both warmed up for deer season."

— WCO DOTY A. McDOWELL, SAINT MARYS

Working on It

ADAMS — Wild turkey populations across the state are at all-time highs, except on the South Mountain in the Michaux State Forest. About two years ago the National Wild Turkey Federation, DCNR and the Game Commission formed the Michaux Wild Turkey Task Force to identify and possibly correct factors contributing to the decline.

— WCO RICHARD E. KARPEN, YORK SPRINGS

Cat's Out of the Bag

TRAINING SCHOOL — While assigned to WCO Stanley Norris in Fayette County for field training, we were so busy I seldom had time to call my wife at home. During one rare call, though, my wife asked if I was getting enough sleep. Knowing that I'm an early riser, she was relieved to know that some mornings I was sleeping in until 7:30. What she didn't know, though, was that on most nights we didn't get in from patrol until 4 a.m.

— TRAINEE RODNEY L. BURNS, HARRISBURG

Hope it's not a Trend

CLEARFIELD — Last buck season was the first in my 14 years that I had to use the air conditioning in my vehicle while patrolling.

— WCO DAVID A. CARLINI, CLEARFIELD

Can't Blame it on the Holidays

TRAINING SCHOOL — All trainees must weigh in every Sunday evening, and everyone worries that they might have put on a few pounds over the weekend. After staying with WCO Chet Cinamella while on field training, I'm in big trouble. I wonder if I can order larger trousers?

— TRAINEE BARRY A. LEONARD, HARRISBURG



Thought I Heard 'Em All

NORTHAMPTON — At 11:10 p.m. on the first Saturday of buck season dispatcher Dave Seward called to report that Forks Township police officers had an individual in custody who was dressed in complete camo and had been carrying a spotlight while crawling towards several deer in a field and armed with a paintball gun.

— WCO BRADLEY D. KREIDER, CHERRYVILLE

New Experience

CUMBERLAND — When I came here from Allegheny County I knew I would still be picking up roadkills, but I was surprised to learn that they wouldn't all be deer. Last fall I picked up a 21-pound bobcat that was killed crossing the Turnpike near Carlisle. A special thanks goes out to the guys at the Newville Turnpike Maintenance Shed for their help.

— WCO EDWARD B. STEFFAN, NEWVILLE

Bird's Eye View

TRAINING SCHOOL—While patrolling at night with WCO Bill Bower, a bird crashed into the windshield and I asked Bill what the heck it was. Bill replied without hesitation and matter-of-factly, "Screech owl, gray phase." He was able to get a good look at it when it hit the windshield at eye level on his side.

— TRAINEE STEPHEN A. LEIENDECKER, HARRISBURG

Plenty for Next Year

WAYNE — Following a record bear harvest this year I didn't expect to hear much from deer hunters in the way of bear sightings, but I was wrong. It seemed that every group of hunters had a story about a bear encounter. One hunter was knocked down by a bear exiting a tree that he was posted under, and members of a hunting camp who went without a bear during the bear season produced a video of a large bruin on the club grounds in January.

— WCO DONALD R. SCHAUER, HONESDALE



Egg on his Face

ELK — I was checking a hunter in a parking area on state forest land when I noticed a truck coming down the road. When I heard a shot coming from inside the truck I was surprised that the individual would take such a shot with my marked vehicle in plain view. When I didn't see a rifle barrel sticking out the window, and when the truck coasted to a stop in front of me, I expected the worst. When I reached the driver I noticed bits of a white object in his hair and something dripping off the seat. I was sure relieved to discover that it was pieces of eggshell in his hair and egg yolk dripping off the seat. It seems that in his haste to unload his rifle when he saw my truck, his gun went off with the bullet hitting a carton of eggs on the floor.

— WCO RICHARD S. BODENHORN, RIDGWAY

Intuition

During buck season I saw a boy and his father sitting on the porch of a hunting camp, so when I stopped and asked how the hunting was going, the boy told me that the owl was over there. After I had said I didn't know what he was talking about, he said that they had found an owl with a broken wing and reported it to the region office, and thought that was why I was there. I told him I just stopped to chat, and then my radio crackled and the dispatcher reported the owl. When I told the dispatcher I was already taking care of the situation, he couldn't believe I had responded before I had even received the call. Too bad pizza deliveries don't work that way.

— LMO COLLEEN M. SHANNON, GRAMPIAN

Catchin' the Breaks

BEDFORD — Say, did you hear the one about the poacher who killed a bear from a treestand over bait only to drop and leave his bear license beside the corn and molasses? Or how about the three guys who poached two deer in a farmer's field, then dropped their cellular phone in the grass beside the bloodstains. Fortunately, my deputies and I heard about these cases, and upon apprehension, none of the concerned parties were amused.

— WCO DAN YAHNER, EVERETT

Treading Deep Waters

TRAINING SCHOOL — While patrolling on the buck season opener, WCO Doty McDowell and I drove our vehicle into a puddle of water that was deeper than we had thought. With water just below our doors, we were stuck. Luckily, hunter Bob Wellde of Kersey was passing by and drove me out to get another vehicle to tow the Bronco to higher ground. I'd like to thank WCO McDowell for teaching me a valuable lesson on testing waters before driving into them. I can't say who was driving, though, but I'm sure glad it wasn't me.

— TRAINEE RANDY W. PILARCIK, HARRISBURG

Quick Thinking, Shirley!

CENTRE — One ingenious Coburn resident didn't have a pencil or piece of paper to jot down the description and license plate number of a vehicle used in a violation, so she used her cell phone to call her residence and dictated the information to her answering machine.

— WCO GEORGE F. MOCK, SPRING MILLS

Strange Season

YORK — While checking a local butcher shop during the first week of buck season, the deer with the nicest rack I had seen all week was a 6-point doe hanging there. The rack was high, well-polished and had no traces of velvet. I bet there were some surprised and possibly injured bucks running around this past rutting season. Then, on the doe season opener, I responded to a call about an adult doe standing in the bathtub at a small apartment in the Dillsburg area.

— WCO G.C. HOUGHTON, EMIGSVILLE



Only a Biologist Could Do That

While bird hunting last fall with a certain soon to be retired turkey biologist I noticed that each time a grouse flushed, Bill would yell out the sex of the bird. You'd think that if he had the time to determine the sex of the bird, he'd be able to hit one once in a while.

— LMO STEVE GEHRINGER, MANSFIELD

Understandable

Retired WCO Carl Jarrett told me he has a problem with modern technology. It seems that he could not get the Penn State football game on his TV one Saturday, and after becoming thoroughly frustrated, he called his wife Doris to fix it. The problem was solved when she told Carl to put down the cell phone and try the TV remote.

— LMO DAVID KOPPENHAVER, EVERETT

Busier than Us

TRAINING SCHOOL — Deer season is the most unrelenting time of the year for a WCO, but we're not alone. A hunter told me he had a doe run by, followed closely by a spike buck. Rustling from behind caught his attention and he turned to see four larger bucks in hot pursuit of the same doe. And I thought we had our hands full.

— TRAINEE MATTHEW P. TEEHAN, HARRISBURG

It Pays to be Prepared

CLARION — Almost every year a few hunters say there just aren't any big bucks around anymore. Trying to stay ahead of the game last season, I cut a photograph of two successful hunters that appeared with their big bucks in the Oil City Derrick newspaper. One was a 14-point with a 26-inch spread and the other was an 11-point. Both deer were taken from the same deer stand. Not one hunter I talked to griped about the size of the deer that were taken, and many had already seen the photograph I was carrying.

— WCO ALAN C. SCOTT, NEW BETHLEHEM

Don't Look Now

TRAINING SCHOOL — I spent some time in Westmoreland County while on field assignment and soon discovered that driving was a real challenge there. After spending mile after mile on roads where I could see the front and back of the vehicle at the same time, I was astonished to see a sign that read, "Winding Roads Next 2 Miles."

— TRAINEE R. E. BIMBER, HARRISBURG

Well Camouflaged

MIFFLIN — Lynn Aurand of Lewistown was fishing last spring when he came across a Canada goose nesting on a willow stump. Lynn took some photos and later had his wife pick them up at the photo processor. When she returned home she asked Lynn why he hadn't taken more pictures of the duck. Thinking that his wife was referring to the goose as a duck, Lynn took another look at the photo and noticed that a hen mallard was sitting on a nest just below the goose on the same stump. He had never noticed the duck when he had taken the photos.

— WCO JEFF MOCK, LEWISTOWN



Gotcha

McKEAN — On the first Saturday of buck season I checked my first junior hunter who had taken a doe (also his first deer). I told the youngster and his dad that I would fill out a 502 Form. (A 502 is used by our biologists to determine reporting rates.) When I asked the boy his full name he gave me a puzzled look and asked why I needed his full name. I told him that because he had taken his doe for the season, I'd expect his name not to be on the absentee list at school on the first day of the regular antlerless season. His jaw dropped and he muttered, "Aw man."

— WCO THOMAS M. SABOLCIK,
PORT ALLEGHENY

"Otta" be in a Foul Mood

Last summer my father and I were fishing in Canada when he had a tremendous strike. At one point in the tedious fight I caught a glimpse of a "fish" that appeared to be over three feet long and was extremely dark. I thought he had a large pike when all of a sudden an agitated river otter popped its head out of the water and began hissing at us. The animal was foul-hooked on its skin at the shoulder, and being that we didn't have a net in the boat I wasn't sure what to do. Fortunately, we fish with barbless hooks and the otter was able to free itself when the hook was straightened out from the fight.

— J. CARL GRAYBILL, I & E BUREAU,
HARRISBURG

Good Sign

The milder weather early this winter enabled quite a few bald eagles to hang around near the Allegheny River and Tionesta Creek. Many people saw these birds; four birds were even seen feeding on a deer carcass along the banks of the Allegheny River near Tionesta. Although eagle sightings have become much more common, it's still a treat to see our national symbol in action.

— WES RICHARD T. CRAMER, TIONESTA

Formula for Success

Through the years I've learned that the consistently successful hunters are not necessarily those with the most expensive equipment. Rather, they are those who spend a lot of time in the outdoors noticing things.

— LMO CLAYTON G. VANBUSKIRK,
MILLERSTOWN

One For the Books

BRADFORD — On the buck season opener I checked hunters wearing T-shirts, a hunter on a motorcycle (wonder how he would have gotten a deer out?), and a hunter who reported seeing wild strawberry blossoms.

— WCO WILLIAM A. BOWER, TROY



Modern Navigators

TRAINING SCHOOL — One night while trying to find the site where a violation had occurred, my training WCO and I got turned around in a dense stand of rhododendron. A compass would have come in handy, but not having one we tried using the stars for guidance. When that didn't work we used our radio to call a deputy waiting in our vehicle, and told him to blow the horn.

— TRAINEE RICHARD E. MACKLEM,
HARRISBURG

Dangerous Situation

SCHUYLKILL — Several deputies were staking out a poaching hotspot late one night when a vehicle slowly drove by several deer feeding along a remote road. After shining the headlights on the deer, the truck stopped. The deputies drove up behind the vehicle and activated their red lights. The officers then approached the vehicle, and when the driver was asked for ID, he jumped from the truck and attacked a deputy. After subduing the driver, the officers found a loaded rifle in the vehicle. Later, at the magistrate's office, it was learned that the suspect was on probation for other offences and was afraid of going to jail. This is but one example of how deputies routinely risk their lives to protect wildlife.

— WCO STEVE HOWER, PINE GROVE

Fall flintlock antlerless deer season proposed

A 3-DAY FLINTLOCK season for antlerless deer highlighted the 1999-2000 seasons and bag limits proposed by the Game Commission at its January meeting. These proposed seasons and bag limits will be considered for adoption at the Commission's April meeting.

A movement to expand flintlock deer hunting opportunities has been gaining momentum in recent years. In response, the commissioners proposed an antlerless deer hunting season for November 18, 19 and 20. Participants would be required to possess a regular hunting license, a muzzleloader license and an antlerless deer license for the county in which they're hunting. Only flintlock-ignition muzzleloaders and roundball ammunition would be permitted, just like the after-Christmas flintlock season. But unlike the traditional season, in this early season, flintlockers would be required to wear 250 square inches of fluorescent orange clothing on the head, chest and back combined.

Commissioners also have proposed waiving the July 31 deadline for purchasing a muzzleloader license, to accommodate hunters who decide in the days before the flintlock season opens that they want to participate. The deadline was put in place in 1984 to limit the uncontrollable harvest of

antlerless deer in the muzzleloader season. In the early '80s, muzzleloader license sales escalated to more than 100,000, and because holders of this license are allowed to shoot antlerless deer anywhere in the state, the unregulated antlerless deer harvests were becoming a concern.

"We can't guarantee there won't be significant antlerless harvests by flintlockers in some areas that may reduce the availability of deer to hunters in the future," explained Cal DuBrock, Bureau of Wildlife Management Director. "This season represents uncharted waters for deer biologists. We don't anticipate problems at this time, but we also don't know how many hunters will participate or what their success rate will be."

In 1998, more than 87,000 muzzleloader licenses were sold. "This year, should this season be adopted, those numbers may increase significantly," said DuBrock. "We expect the demand for licenses to be there, given the attractiveness of this season. It's being held when the weather is typically very agreeable, and the season precedes the traditional firearms seasons, which means more deer afield than during the post-Christmas hunt."

Biologists don't know what impact the proposed deadline removal will have on the availability of antlerless

licenses. Considering that the 80,000 to 90,000 hunters who have been surrendering their antlerless license applications would now be permitted to apply for licenses, there will likely be some reduction in availability.

Flintlock hunters participating in the late, traditional muzzleloader season will still follow the regulations that have governed that post-Christmas hunt for years. If they've taken an antlered deer in buck or archery season, their flintlock license is no longer valid, unless they have an antlerless license, which limits hunting to the county for which it was issued. If they have not taken a buck in the earlier seasons, they may take a buck or an antlerless deer anywhere in the state with the general hunting license back tag/flintlock license during the after-Christmas hunt.

In 1997, 9,325 deer (including 596 antlered deer) were taken during the flintlock season. During the most recent season, for which figures are not yet available, hunters were hampered by snow, ice and rain.

Commissioners tentatively approved the return of surplus license sales statewide. Surplus licenses are antlerless deer licenses still available after three weeks of sales. Except in special regulations counties, hunters will be limited to buying one surplus license. Surplus licenses may be used in any season permitting the taking of antlerless deer.

Surplus licenses were made available statewide from 1988 until 1997, when sales were discontinued in all but special regulations areas.

Last spring, commissioners tentatively approved the return of surplus license sales statewide, but when it came time to adopt that measure in July, they chose not to. Later, at the October meeting, surplus licenses were approved for southwestern counties.

Over the years, biologists have frequently expressed the need to issue all antlerless licenses to reach county deer population goals. Public reaction to surplus licenses, however, has been mixed, compelling some commissioners to vote against their return. Hunters opposing surplus licenses feel they contribute to fewer deer, especially on public lands.

Agency biologists, however, have pointed out that the state's deer management program cannot move forward when licenses go unsold. "Surplus licenses enable us to use entire county antlerless license allocations, which are designed to annually adjust or maintain deer populations at healthy levels," DuBrock said. "But we also understand there's a perception among hunters that deer are in short supply in some areas, and that fuels opposition. While we don't disagree that these hunters may have declining deer numbers where they hunt, it's not a statewide or a countywide problem."

Commissioners tentatively approved the continuation of the youth antlerless deer hunt on the two Saturdays of antlered deer season, which will run from November 29 to December 11. Also tentatively scheduled were antlerless deer season, December 13-15; fall archery deer season, October 2 to November 13; and late archery and flintlock deer seasons, December 27 to January 15.

At the beginning of the meeting, Vernon K. Shaffer, Reading, was elected to serve as president of the Game Commission. Shaffer, who served as a Berks County commissioner for 24 years and a deputy wildlife conservation officer for 20 years, was appointed to the Game Commission in February 1994. Dr. Nicholas Spock, Shamokin, was elected vice president and Samuel J. Dunkle, Duncansville, secretary.

In other action, the commission moved to:

- Explore the possibility of allowing resident lifetime license holders to upgrade for a one-time \$50 fee their existing license to the new lifetime combination license, which includes lifetime archery, flintlock and furtaker license privileges.
- Table a resolution authorizing the agency to enter into an agreement with municipalities and other agencies to fund projects recommended by the Elk Advisory Committee and directly benefiting elk management and viewing activities. The resolution called for a \$2 donation from every elk video sold to be deposited into a fund for these projects.
- Adopt a measure to permit landowners who qualify for the Deer Damage Farm program and have been enrolled in a Game Commission public access program for at least two years to apply for a Deer Depredation Permit.
- Direct staff to provide a report at the April meeting on the feasibility of a three-day bear archery season.
- Direct staff to prepare logistically for a controlled elk hunt.
- Direct staff to develop a program promoting the benefits of donating land to the Game Commission for inclusion in the game lands system.
- Direct staff to determine the cost of providing the newly developed Lyme disease vaccine to agency employees.
- Direct staff to evaluate the possibilities of making format changes to Pennsylvania *Game News* magazine and using paid advertising to defray printing costs.
- Ask staff to survey field officers to assess whether coyote hunting is being used as a cover for illegal hunting activity during deer season.
- Direct staff to develop a “habitat advisory committee” to gain input from hunters and other sportsmen on where and how the agency spends license-mandated funds on habitat improvements.
- Ask staff to explore ways to market unused “conservation stamps,” which were printed to accommodate previously proposed license legislation.

Proposed 1999-2000 Hunting Seasons and Bag Limits*

Hunting Seasons

- Squirrels, Red, Gray, Black and Fox (Combined):** Special season for eligible junior hunters, with or without required license – Oct. 9 & 11; Fall Season – Oct. 16 – Nov. 27; Late Season – Dec. 27 – Feb. 12, 2000 (6 daily, 12 in possession after first day).
- Ruffed Grouse:** Oct. 16 – Nov. 27 and Dec. 27 – Jan. 29, 2000 (2 daily, 4 possession).
- Rabbit (Cottontail):** Oct. 16 – Nov. 27 and Dec. 27 – Feb. 12, 2000 (4 daily, 8 possession).
- Pheasant:** Male Only – Oct. 16 – Nov. 27. Male & female in designated area – Oct. 16 – Nov. 27 and Dec. 27 – Feb. 12, 2000 (2 daily, 4 in possession).
- Bobwhite Quail** (Closed in 13 counties): Oct. 16 – Nov. 27 (4 daily, 8 possession).

Proposed 1999-2000 Seasons and Bag Limits, continued

Varying (Snowshoe) Hares: Dec. 27 – Jan. 1, 2000 (2 daily, 4 possession).
Crows: July 2 – Nov. 28 and Dec. 24 – March 26, 2000, hunting Friday, Saturday and Sunday, no limit.
Wild Turkey (Male or Female): Management Areas 1A, 1B, 2, 6, 7A & 8 – Oct. 30 – Nov. 13; Area 7B – Oct. 30 – Nov. 6; Areas 3, 4 & 5 – Oct. 30 – Nov. 20; Area 9A – Closed to fall hunting; Area 9B – Nov. 1 – Nov. 6. (1 bird limit, either sex).
Spring Gobbler (Bearded bird only): April 29 – May 27, 2000.
Black Bear: Nov. 22 – Nov. 24.
Deer, Archery: Oct. 2 – Nov. 13 & Dec. 27 – Jan. 15, 2000.
Antlered Deer (Buck) Statewide: Nov. 29 – Dec. 11.
Antlerless Deer (Statewide): Dec. 13 – Dec. 15.
Antlerless Deer (Statewide, junior license holders only): Dec. 4 and Dec. 11.
Deer, Flintlock: Dec. 27 – Jan. 15, 2000
Deer, Antlerless Flintlock (with county-specific antlerless deer license): Nov. 18 – Nov. 20.
Raccoon & Foxes: Oct. 16 – Feb. 26, 2000, unlimited.
Coyote, Opossum, Skunk & Weasel: No closed season, unlimited.

Trapping Seasons

Mink & Muskrat: Nov. 21 – Jan. 9, 2000, unlimited.
Coyote, Fox, Opossum, Raccoon, Skunk, Weasel: Oct. 17 – Feb. 26, 2000, unlimited.
Beaver (Statewide): Dec. 26 – March 15, 2000 (Limits vary depending on Furbearer Management Zone).

*These seasons and bag limits are proposed. The Commission will take final action on these and other proposals at its April meeting, scheduled for April 8 & 9 at the Harrisburg headquarters.

Revised budget request sent to governor

COMMISSIONERS agreed to submit a revised budget to the governor's Office of Budget that would increase expenditures by \$3 million to \$61.2 million for fiscal year 1999-2000. The additional expenditures would be \$2 million for land acquisition and \$1 million for repairing dams and buildings, and replacing tractors and other off-road equipment.

"We've shortchanged these pro-

grams for the past several years in order to keep the agency's Game Fund level healthy as we waited for a hunting license fee increase to boost our revenues," explained Game Commission Executive Director Don Madl. "That increase was recently signed into law by Gov. Tom Ridge and we're subsequently taking action to make up for lost ground in these important areas."

Deputy receives certificate of commendation

DEPUTY Wildlife Conservation Officer Kevin Maguire of Philadelphia was awarded a certificate of commendation by the Game Commission for his actions during a September 27 incident involving an injured bicyclist on the Middle Creek Wildlife Management Area.

Maguire, who was on duty at the Middle Creek visitors center, played a crucial role in saving the life of Ammon Weaver Jr., 16, Ephrata, who sustained serious head injuries in a biking accident on the nearby Horseshoe Trail. After cyclists accompanying Weaver alerted Maguire of the accident, the officer grabbed his cell phone and rushed to the scene on foot, despite having an injured knee, one that was scheduled for replacement surgery. At the scene, Maguire arranged for emergency medical assistance on his cell phone and administered first aid. Martha Weaver, the victim's mother, credits Maguire with saving her son's life.

"The Game Commission is proud



DEPUTY KEVIN MAGUIRE was awarded a certificate of commendation for his role in saving the life of a bicyclist injured in an accident. Newly elected commission president Vernon Shaffer made the presentation.

of Deputy WCO Maguire and would like to take this opportunity to commend him for a job well done," PGC Executive Director Don Madl said. "A young man is alive today because of this officer's selfless actions and quick thinking."

Two charged in illegal bear gallbladder trading

A MARYLAND couple was charged for illegally buying black bear gallbladders. In Hui Stromko, 52, Fallston, Maryland, was apprehended December 6, in Fulton County by wildlife conservation officers. Arraigned be-

fore District Justice Carol Jean Johnson, Needmore, Mrs. Stromko was charged with seven counts of illegally buying wildlife parts, a violation of Pennsylvania's Game and Wildlife Code. Charges involve potential fines

of \$8,000. Charges were also filed with District Justice Cathy Calhoun, Everett, against William E. Stromko, Fallston, Maryland. He was charged with four counts of illegally buying wildlife parts and faces potential fines of \$4,400.

Charges against the Stromkos stem from an investigation wildlife conservation officers began in December 1997.

Mrs. Stromko was apprehended by Bedford County WCO Dan Yahner, who was assisted by Deputy Wildlife Conservation Officer George Mills and Southcentral Region Law Enforcement Supervisor Tim Marks.

Bear gallbladders are highly prized for use in medicines and other potions on the Asian market. Gallbladders can bring thousands of dollars apiece at

overseas auctions. The illegal, commercial trade in bear gallbladders and other parts, such as paws, claws and teeth, has become a big business across North America.

"Trade in bear parts continues to be a serious problem in Pennsylvania and elsewhere," said PGC Law Enforcement Director J. R. Fagan. "However, we have not seen any increase in the number of illegal bears killed in the state. The Game Commission will remain vigilant in its efforts to protect bears and other wildlife from this and other commercialization threats."

The illegal trade in protected wildlife and wildlife parts has plagued wildlife officers for decades. "There's a demand for these animals and parts," explained Fagan. "We believe it is a problem that isn't going to go away."

Regulations being developed for disabled to use ATVs on SGLs

THE GAME COMMISSION is developing regulations that would permit the use of all-terrain vehicles (ATVs) on state game lands by persons with certain classes of physical disabilities. These regulations are the product of discussions among members of a working group that has been meeting regularly for the past two years to address the outdoor recreational needs of physically challenged individuals, especially as they pertain to state game lands, forests and parks.

Under the working draft of the

regulations, the agency will designate roads that will be open to ATVs operated by individuals who meet specific criteria. These roads would be open two weeks before the start of fall archery season until the close of winter muzzleloader season and two weeks before spring gobbler until the close of that season.

ATVs must be registered with the state Department of Conservation and Natural Resources. In addition, permitted persons must have a liability insurance policy providing a minimum

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

of \$100,000 coverage. A blue-and-white disabled person placard must be displayed on the ATV and towing vehicles must display a towing vehicle placard provided by the Commission on the dash.

The working draft also stipulates that a permitted person may drive no more than 100 yards from the nearest road edge to establish a hunting location. They may not traverse waterways, wet areas or food plots, except under certain conditions.

This working draft is currently be-

ing reviewed by the Department of Conservation and Natural Resources' bureaus of state parks and forests, Pennsylvania Fish and Boat Commission, Pennsylvania Sportsmen for the Disabled Inc., Unified Disabled Sportsmen of Pennsylvania and other interested individuals.

Once the review has been completed, the rulemaking process will be started. The effort is considered a top priority and is expected to be introduced at the April Game Commission meeting.

Couple donates 152 acres to agency

MINERVA J. and George L. Fenner Jr. of Wilkes-Barre have donated 152 acres in Luzerne County to the Game Commission. The land is forested and bisected by Township Route 546. The Fenners stipulated that the land must remain open for public use and cannot be exchanged for development. It will become part of State Game Lands 207, which currently contains 2,058 acres.

Commissioners also approved a large land exchange with Consolidated Steel Services Inc. of Cresson. In the deal, Consolidated will receive

a 44-acre parcel of SGL 108 in Cambria County to expand its facilities. In exchange, the Game Commission will receive a 173-acre interior holding of SGL 158 in Cambria County's Reade Township; 156 acres adjacent to SGL 262 in Indiana County; and 129.6 acres adjacent to SGL 105 in Armstrong County.

In another land exchange, Pauline and Thomas Litzinger of Pulaski traded a 17.9-acre tract adjacent to SGL 150 in Lawrence County for a one-acre parcel of the same game lands.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 717-398-4744

Southcentral — 814-643-1831

Northeast — 717-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

Sometimes the “school of hard knocks” is the best teacher, but too many lumps can take a toll after a while. Someone ought to write a book on all those pitfalls most of us had to learn the hard way.

Life Lessons

“WE OUGHT to write a book,” my husband said on a recent cross-state trip. With nothing to do but look at the Pennsylvania scenery going by for seven hours, we did a lot of talking and sharing ideas that we don’t always have time for in our daily routine.

“We should write a book on life lessons,” he said. “All the things you need to know, that no one might have told you, about getting on with life. It would be the kind of book people buy for high school and college graduates, and young married couples — young people just starting out on their own.”

I thought about the life lessons my husband and I had learned the hard way. Such as the need to put oil in the lawn mower and change it and the air filter occasionally, and sharpen the blades. Luckily the mower that seized up from lack of oil was an old model that had been given to us. But at 19 years old, I didn’t know, and neither did my young, non-mechanically-minded husband, that you had to add oil and service the contraption.

I also thought about my driver’s education class in high school, and how I was taught to master the 3-point turn and to parallel park. But no one ever mentioned checking the engine oil and, in those days, water in the radiator, or showed me where

to add windshield wiper fluid, or how to change a tire. Maybe guys just naturally know more about these things than girls do, but I doubt it. I’m just glad my car didn’t go the way of the lawn mower.

I remembered, too, the eye-openers of first-home maintenance, the mistakes and the hard-won knowledge. Like the life lesson that you should always count on applying two coats of paint to cover, no matter what the can says, so buy enough of the shade the first time, so it all matches. We found out with a cellar flood that you have to “bleed” a water heater occasionally, and that “washerless” faucets may not have a washer, but they do have a part that will wear out and cause a leak. And you’d better know how to replace the part yourself, because plumbing problems always occur Friday night or over the weekend, when you have a house full of company.

As we crossed a highway bridge over a deep, wooded valley, I thought about other life lessons that had taken a while, maybe too long, to learn on my own. I wish someone had written a book for me and cured my early naivete in even more vital matters. I know now that people may pave the land and build houses, stores and offices, that hold within them the tropical mini-climate that humans require, but we can’t remove ourselves from the natural world. I

wish I'd paid better attention in Earth Science class, or that the class had been focused more on how natural systems related to me, right in my home town, and how I related to them.

Like water. In science class, we were taught about the circular system that proceeds from rains in the headwaters, to streams that reach the sea, to evaporation to form clouds, and back to rainstorms again. But I didn't find out the practical life lesson to be learned from this until I tried to buy a home. The house my husband and I chose, we told the bank officer as he wrote the loan application, was near a creek. His pen paused midline. "How near the creek?" the bank officer asked. "About 100 yards," we said, "but up on a hill. Why?"

Because, the bank officer said, that lending institution would not finance property that was subject to flooding. This was why it was worth paying attention to how the water cycle works — that creek valleys and floodplains are conduits for draining excess away. Floods happen as a normal process, they're not a calamity. An inundated homeowner has only himself to blame if he bought where the water can reach him. Not everyone learns that life lesson, as I read in the paper one day. A woman who was interviewed when her creek-edge trailer washed away wanted to know why "they" didn't do something about the flooding? Well, I remember thinking, why did

she position her home next to a stream? What did she think streams were for?

Fighting with, rather than living with, the natural world is not only futile, but foolish, I learned in another life lesson. The perfect, all-grass lawn is a myth, and a potentially dangerous one. Ground vegeta-

tion is supposed to be varied, a mixture of grasses, dandelions, plantains, crabgrass, clovers, violets, daisies and other plants. Many types of seeds blow in, or are carried in by birds and other animals, and take root. In this part of the country, if left alone, short ground covers eventually give way to tree seedlings and bush species, then full-fledged

forest. By regularly cutting the low growth, we keep the lawn vegetation in a very early successional stage.

There's nothing wrong with that, but I found out there is much amiss in drenching a lawn with pesticides and herbicides

*Fighting with,
rather than living
with, the natural
world is not only
futile, but foolish,
and is one life
lesson we all need
to learn.*

Linda Steiner



SOME PEOPLE insist on maintaining a plush, green, all-grass lawn, but drenching a lawn with pesticides and herbicides can harm wildlife by direct contact and through food sources. Plus lawn chemical run-off can hurt streams and water life.

to get a green, all-grass, outdoor "carpet." The chemicals can harm wildlife by direct contact and through food sources, like insects, worms, and the plants themselves. Plus, lawn chemical run-off can hurt streams and water life. And rolling around on a chemically treated lawn can't be too good for the kids. Having the perfect lawn isn't worth the price.

As a belated life lesson, I learned to pay attention to where my water comes from, whether from a well, a reservoir or a river. How clean is the water I drink? What about groundwater contamination, and point and nonpoint source pollutions? What's upstream and what's seeping in? When I flush the toilet or pour detergent water down the drain, where is it going? I once might have thought it just disappeared, like a magic wand was waved and my wastes were gone. But now I think about whether the sewage treatment plant in town is doing its job, and whether my septic tank is working well.

In realizing that I was not separate from the natural world, I learned life lessons about wildlife. Not only would my life be bleak without wildlife, but I discovered that everyone has an interest in wildlife on some level. I know my houseguests prefer watching birds at my feeders to staring at the blaring, nonsensical TV, and so do I. Those

who hunt are as likely or, I suspect, even more likely to be involved in backyard bird feeding and other types of wildlife-watching, as those who don't hunt. In general, hunters have more understanding of wildlife's habits, needs and natural history, and an appreciation of it, than nonhunters. I learned this life lesson some time ago, but it's one which many more folks need to acquire. I hope I'm helping to teach them by example.

As Pennsylvania's green hills sped by the car window, I decided that maybe what my husband and I needed to write was not one, but two, "Everything I Wish Somebody Had Told Me Ahead of Time" books. One volume we could gear for the general public, the other for sportsmen and those interested in the outdoors. Then I thought that would be contrary to the purpose of the book. Everyone needs to know the life lessons we'd be aiming at outdoors enthusiasts. An understanding of wildlife and its place in the world and our lives would help those who might spread too many chemicals on their lawns to, instead, welcome the dandelions, whose seeds, leaves and stems the birds and rabbits eat.

We may never get around to writing the book, but at least now I've written the article. □

Videos in Brief

(Not available from the Game Commission.)

Care & Cooking of Upland Gamebirds, **Care & Cooking of Waterfowl**, and **Venison Aging, Smoking & Sausage Making** are three new game and field care and cooking tapes released by Wild Harvest Videos Company and featuring master chef Milos Cihelka, America's leading certified chef who is also a life-long hunter. In the tapes Cihelka explains what the best temperatures are for hanging and aging big game, wild turkeys, ducks, geese and upland gamebirds. He also explains why some birds should be skinned while others are plucked, plus he shows in detail how to do these things. Chef Milos' videos and recipes have been used as educational training materials at the American Culinary federation where future chefs are trained. All tapes are approximately one hour or longer in length and have either cook booklets or printed recipe cards inside each cassette box. Video tapes are \$24.95 each and are available at leading video, book, outdoor sports and cooking supply stores or by calling 1-800-819-3799.

Behind the Badge

By Steve Hower

Schuylkill County WCO



Bumbo had the Rifle



READING to 632.”

“632,” I answered.

“Reading to 632, I just received a report about a large bear that was shot in Cass Township. I contacted two of your deputies and they are standing by at the scene with some witnesses. The bear is still alive. What are your wishes?”

“632 to Reading, advise my deputy units to stand by until I arrive.” I spun my ve-

hicle around and headed off.

“632 to 632G,” I called for Deputy Jeff Griffith who was standing by at the scene.

“Go ahead,” he answered.

“What’s the status of the bear?”

“Not good, Steve. It can’t get up. Looks like it’s suffering pretty bad.”

“Go ahead and put it down, Jeff. I’ll be there in about 15 minutes.”

It was not bear season, but late in the

afternoon on the last day of the '93 buck season when this conversation took place. As I drew closer to the scene I had to wonder why people do such things. When I arrived I was shown a large male bear that had been shot and left to die. The witnesses who were waiting told me the story.

They had been deer hunting all day in an area known locally as Mine Hill. The entire area is scarred by old coal mining activities. The landscape is covered with stripping pits and spill banks that are now grown over with scrub brush and small trees — that's all the rocky soil will support.

In the early days of mining, the trenches dug to expose coal, called stripping pits, were rarely if ever filled back in, and the rocks and earth that had been dug from the trench were deposited next to it. As the pile grew higher, rocks spilled down the sides and gave these long unsightly piles of debris the name "spill banks."

These deer hunters were putting on the last drive of the day when they flushed the bear from its resting area. The standers watched in amazement as the bear walked through their line and disappeared from view behind a spill bank.

The quiet was shattered by a shot from the other side of the bank. When the hunters went to investigate they found the injured bear staggering around in the stripping pit and two men standing on the spill bank looking at it.

The suspects were apparently oblivious to the presence of the witnesses. One was seen with his rifle shouldered, ready to shoot at the bear again. His companion was carrying a shotgun and was standing only a few feet away from the man with the raised rifle. A third person was on a woods road nearby and was identified by the witnesses as Jimmy Berky.

The witnesses said that although they couldn't tell for sure, they felt certain that the other two were Jimmy's two older brothers, Jacky and Bumbo. Upon realizing they were being watched by the hunters, both men fled. The witnesses then ap-

proached Jimmy to ask him what was going on. Extremely nervous, Jimmy denied any knowledge of a bear being shot, even though the crime had occurred just yards from where he had been on stand.

After loading the bear onto my truck I went directly to the Berky residence, which was only about a mile away. Only Jimmy was home, and after questioning him I was able to confirm that he had indeed been hunting with his two older brothers in the area. Jimmy insisted he knew nothing about a bear. I seized his rifle for ballistics tests. Because I could find no exit wound on the bear, I felt certain that if the bullet could be retrieved from the carcass, the rifling marks on it might match one of the suspects' rifles.

After several minutes Jacky came home and I quickly seized his firearm. It was a 12-gauge shotgun and he produced slugs from his hunting coat. He too denied any knowledge of the bear being shot. When I asked where Bumbo was, I was told that he must have gotten lost in the area where they had been hunting. I didn't believe this. I felt certain these brothers had been hunting on this hill near their home for many years. I thought it more likely that Bumbo was looking for a good hole to crawl into somewhere because he had dealt with me before.

Two years earlier I had arrested Bumbo and two of his friends for killing a deer out of season on Peach Mountain. Bumbo was also charged with giving false statements to an officer (me) about the same incident. That little caper had cost him \$700, so it wasn't hard to imagine that he wouldn't want to see me now. Knowing Bumbo was a liar, I wasn't all that interested in what he might have to say, but I wanted that rifle he was aiming at the bear when the witnesses first saw him.

I took the bear to a butcher and within minutes we removed a 30-caliber bullet. I caught up with Bumbo the next day and listened as he claimed he did not even own a 30-caliber rifle. And besides, if he did,

he would not shoot a bear during deer season.

I was soon able to eliminate both Jimmy and Jacky as suspects. Jacky had been hunting with a slug gun that day, and ballistics tests had shown that Jimmy's rifle, although a 30-caliber, was not the gun that had shot the bear.

I was about as far as I could go with the investigation when I got a break.

I learned that Jacky was on parole from a state prison where he had spent about four years as a guest of the commonwealth on a drug charge. I had arrested him years ago for littering, and he apparently went from bad to worse.

I called his parole officer and explained that I wanted Jacky to take a polygraph test. He was summoned to the Minersville Police Department where we offered him a deal. In return for agreeing to the polygraph he would not have to go back to serve a 6-month sentence at the "crowbar hotel" for possessing a firearm (the shotgun) while on parole. He seemed to like the terms of our deal and quickly accepted.

The Pennsylvania State Police polygraph examiner hooked Jacky up and began to ask questions about his knowledge and involvement in the bear shooting incident. As Jacky denied knowledge of the details of the bear being shot, the machine registered deception. In other words, according to the machine, Jacky was lying. When confronted with the test results, Jacky blurted, "Okay, I was using a shotgun right? Bumbo had the rifle, right? The bear was shot with a rifle, so you figure out who shot the bear, okay?"

I charged Bumbo with the unlawful shooting of a bear and as expected, he got an attorney and requested a hearing. After hearing all the evidence District Justice

Charles Moran found him guilty of shooting the bear. Bumbo requested an appeal and sometime later, in Schuylkill County's Court of Common Pleas, another judge, after listening to the same testimony and seeing the same evidence, looked down from the bench and said, "Officer Hower, how can you be certain that Jacky wasn't the shooter?"

Once again, I explained that the evidence as well as the testimony had shown that Jacky was hunting with a shotgun with slugs and that the bear had been shot with a rifle, and that the defendant, Bumbo, was seen holding a rifle aimed at the bear.

At that the judge said that for all he

knew Jacky might have put his shotgun down on the ground, taken the rifle from Bumbo, and shot the bear.

"If that happened," the judge continued, "you charged the wrong man. I find the defendant Bumbo Berky not guilty."

Once again I walked from the halls of justice wondering if wildlife law enforcement was worth all the time and expense we put into it. As I walked to the courthouse parking lot that day, I began to again contemplate why the judges don't seem to care. Why, I thought, does it seem that they look for any reason at all to throw out a wildlife case? Aren't these laws important, too? Or are only crimes with human victims worth prosecuting?

Of course, I know that it's my chosen profession to bring people like Bumbo Berky to justice, no matter what the results. I also know that the vast majority of citizens do support our work and expect wildlife law violators to pay for their crimes, and you can rest assured that I will continue to do my part. There is nothing I would rather do. □



We gauge spring by the rising mercury,
but with wildlife it's the increasing daylight
that triggers . . .

Early Sounds of Spring

BY EARLY February birdcalls begin morphing into songs. With the *fee-bee* of black-capped chickadees, the *peter-peter* of tufted titmice, and the more complex, bright caroling of house finches, I hear the beginning sounds of spring.

At first the resident birds seem unaf-

fected by the weather. The over-wintering song sparrow sings *hip, hip hoorah, boys, spring is here* in the teeth of a snowstorm, and northern cardinal's *pretty, pretty* on the coldest days of mid-February. The irrepressible titmice, chickadees and house finches sing no matter what the weather, proof to me that it is the lengthening daylight, not the temperature, that encourages their songs.

But at least a small warming trend is needed to bring in the first eastern bluebirds singing *cheer, cheerful charmer*, the eastern phoebe's low-pitched repetition of its name, and the shrill *dee-dee-dee* of killdeer flying overhead. By the end of last February the dawn chorus around our house included American tree sparrows, song sparrows, an eastern phoebe, bluebirds and cardinals.

The sounds of spring intensify with the advent of March. Canada geese and tundra swans sweep over the mountain day and night, honking and woo-hooing. Down in the hollow the first winter wren's song echoes ethereally, and I plan many walks in hopes of hearing it.

On March 1 last year, I was doubly rewarded. Sitting on Dogwood Knoll, I heard



DRUMMING GROUSE ~

the *cheerilee, cheerilee, cheerilee* song of a Carolina wren. After six years they were back on the mountain. I had last heard and seen them during the bitter January of 1992, when a pair followed mouse tunnels into our basement to escape the minus 5-degree cold.

Since then winter wrens had set up housekeeping among the tree debris spanning our stream and had partly filled the Carolina wren void in my life. Even as I rejoiced in the return of the Carolina wrens, a winter wren's song also emanated up to Dogwood Knoll. Now, how was I to choose between those two marvelous songsters — the one otherworldly, the other very much of this world.

Not all the birds are musical. The woodpeckers — pileated, hairy and downy — usher in the season with drumbeats, the larger the woodpecker, the louder the drumming. One pileated likes a resonant tulip tree trunk a quarter mile from our house, but we hear it loud and clear whenever it hammers out its syncopated beat. Although red-bellied woodpeckers and northern flickers also drum to claim their territory, it is their calls — the *kwir, kwir* breeding call of red-bellies and the *wick-a, wick-a, wick-a* of the flickers — that I listen for in early March.

At the feeders, the wintering dark-eyed juncos begin trilling by the second week of March and mourning doves *coo-coo-coo* in what sounds like sad surrender to the season. In the woods, wintering brown creepers also start to sing what I think of as an upside down eastern meadowlark song. Every winter we seem to have more and more wintering brown creepers, and although the March woods ring with their lovely songs, I have not yet discovered any breeding on our mountain.

Years ago a pair of red-winged blackbirds persisted in nesting in First Field for several seasons. Since then, despite planting cattails in our small wetland to encourage their return, redwings have only been visitors, dropping in by the hundreds on early

March mornings when the fog is thick. Dim black bodies swirl from tree to tree, the swishing sound of their wings magnified by the fog. Best of all are their *o-ka-lay* songs, essence of early spring music to my ears.

Then there are the robins. On a thawing day they sometimes appear by the hundreds, running over First Field in search of food and *tut-tutting* with what sounds to my human ears like self-importance. But it is their beautiful thrush song that I wait to hear, each male reverberating with as much resonance as its close relative, the wood thrush. Once in a while we are privileged to have a robin in residence that sings songs with greater variation and complexity than usual. I watch such robins closely to make certain the songs are really coming from them and not from some unknown bird species.

Birds are not the only wildlife I listen for in early spring. Sometime in March, depending on the weather, I hear the first duck-like quacking of wood frogs down in our tiny pond at the bottom of First Field. Their siren calls compel me to crawl through the dried weeds and ease myself up on the hillock that overlooks the pond.

After a few minutes the wood frogs spot me and dive out of sight. I then sit down in front of the pond and remain motionless for at least half an hour until one by one silent, froggy heads pop up. They watch me for a long time before they begin calling and bumping into each other as they test to make sure there are no unattached females in the pond.

I sit there hour after hour, mesmerized by the calling, swimming, mating and egg-laying ritual of wood frogs in our 6- x 3-foot pond, and I am always sad when the wood frog courtship season is over.

Ruffed grouse intensify their drumming and wild turkeys begin gobbling in early March. Ring-billed gulls wheel over the mountain by the hundreds, their calls evoking dreams of a summer beach. The downward *keeer* scream of red-tailed hawks frequently pierces the sky.

But one late afternoon in early March, after a wind picked up, a pair of redtails emitted a new call as they circled above Sapsucker Ridge. To me it sounded like a tin horn, but the experts call it their “chwirk call.” As I watched from the veranda, one hawk landed in what looked like the remnants of an old nest on the ridgetop, while the other flew overhead, its legs extended downward, as it circled, called and then landed in first one tree-top, then another, and still another, as if it were pointing out possible nesting spots. It was performing the “talon-drop” display that redtails do during courtship or to defend their territory.

One call that I listen for most springs but rarely hear is the *peent* of American woodcocks. But last March we heard more woodcocks than we had during the previous 26 years we have lived here. Only twice before had we heard and then watched the male’s spectacular “sky dance,” as Aldo Leopold called it, near dusk over First Field.

Spring officially arrived at 2:58 p.m. on March 20. But it was a disappointing day because it was raining hard and fog blotted out everything beyond our driveway. At 6:40 p.m., when my husband Bruce headed down to our mulch heap with the day’s garbage, he heard the peenting of a woodcock near our barn. He ran back to tell me and our son David, and we rushed down to listen and watch in the light mist and dusky light.

The show continued for 20 minutes. Sometimes the woodcock flew directly overhead, but we couldn’t see anything except an occasional flash of wings, because it was almost dark and the clouds were extremely low. The number of peents varied from five to seven to 12 to 27 before we

heard him chirping above us during his song flight, and then finally the whistling of his wings as he plummeted to earth. The peents seemed to come from several directions, even overhead, yet they are supposed to emit them only on the ground. Researchers claim that the displaying male rotates on the ground, which causes a directional change in the intensity of the peents. That may explain what we heard or, possibly, that this woodcock hadn’t read the books.

Many eastern North American fields are used as singing grounds during the spring, but the functions of the peenting and chirping song flights have not been studied. Ornithologists assume that they are used to advertise the position of each bird to other woodcocks, but they often peent and fly when they are alone.

However, if another male appears or a female visits, the display is intensified. Up to six males have been counted at one singing ground and, as they migrate north, they move from singing ground to singing ground where they mate with whatever females they find. Most continue displaying and mating for two months, once they arrive on their breeding grounds, which can be as far north as southern Canada.

They display twice a day, at dawn and dusk. At dusk they fly or walk to their singing ground from wherever they have spent their day and then, after their display, they fly to a separate place to spend the night or sometimes remain on the singing ground overnight. At dawn they fly back to their singing ground. Probably the length of their displays is triggered by light intensity because, on foggy nights, for instance, they begin earlier and end sooner.

We have always assumed that our First



~WOODCOCK~

Field was merely a stopover point for an occasional migrating American woodcock, although we have the habitat they like — young forest and abandoned farmland mixed with forest — at the boggy bottom of First Field. But three days later our hopes rose that maybe we were nurturing a breeding female when again a woodcock displayed in the lower First Field at dusk. We even had a marvelous view of his overhead flight because the evening was clear. The following evening another display had occurred.

On March 28, as we sat on the veranda near dusk, a woodcock flew past, low to the ground, but it gave no display. That, it turned out, concluded our woodcock appearances, and we found no woodcock nests. Those sky dances, though, were the highlight of last March's spring concerts.

March ended, as usual, with two beautiful sparrow songs. First were the downward spiraling songs of returning field sparrows that breed in both the overgrown First and Far fields. The mournful *poor Sam*

Peabody, Peabody, Peabody songs of migrating and wintering white-throated sparrows followed them.

By the last day of the month our yard, the woods, and even the hollow were filling up with bird music. After a dawn chorus of American tree sparrows, mourning doves, field sparrows, robins, cardinals, song sparrows, juncos, phoebes, bluebirds and house finches, I listened to white-throated sparrows, cardinals, and the just returned male eastern towhees along Greenbrier Trail. From the depths of Dogwood Knoll an especially enthusiastic towhee flew up, perched on a nearby shrub, and loudly proclaimed his name over and over more than 100 times without stopping.

Then a pair of hairy woodpeckers called to each other. As I watched, the male landed high in the tree where the female was foraging. Calling loudly, the birds mated then flew off, reminding me of the reason for the sounds of spring that I eagerly listen for each season. □

***Fun Games* — By Connie Mertz**

Wildflower Challenge

Place a (C) for coltsfoot, (B) for bloodroot, or (T) for red trillium for whichever flower applies to the statements.

- _____ most commonly seen along roadsides in mid-March.
- _____ belongs to the lily family.
- _____ single blossom with white petals.
- _____ flowers appear before any leaves.
- _____ maroon-colored flower on short stalk.
- _____ flower is yellow.
- _____ member of the poppy family.
- _____ orangish juice when stem is broken.
- _____ used by Native Americans as medicine for the eyes.
- _____ leaves made into cough syrup.

answers on p. 64

Many archers realize the importance of thoroughly inspecting their equipment to avoid potential problems, but how about the mental aspects of hunting? Paying attention to the little things could reap big rewards.

Details

BOWHUNTERS are detail oriented people by necessity, because when it comes to getting within 20 yards of one of the wariest animals on the planet, precision is a must.

A bone-chilling wind kept me wide awake one November morning a few years ago as I swayed to and fro in my treestand, which was perched at the intersection of four heavily used deer trails. If it had been three weeks earlier, I wouldn't have even bothered going out hunting because the wind was so strong. But the rut was on, a time when all deer hunting rules go out the window.

I was rubbing my gloved hands together to keep them warm when I spied two does hustling down one of the trails about 40 yards in front of my stand. I figured it was the howling wind that quickened their pace as they disappeared among the pines. But when I saw movement in the thicket from where the does had just materialized, I knew a buck was pursuing them. Sure enough, a thick-necked 10-point emerged from the brush with his nose buried in the ground, hot on the does' trail.

When I walked to my stand in the dark that morning, I had laid down a scent trail with some doe-in-heat musk that extended from the trail the buck was on right to the

base of my tree. I knew the buck was chasing the two deer, but I hoped when he hit my fake trail, he would change direction and walk within bow range. He did. Focusing my full attention on the big buck, I took my gloves off and shoved them into the back pocket of my insulated bib overalls — or so I thought — just like I always do when I'm about to shoot in cold weather. Next, I pulled my bow off its tree hook and clipped my release to the string. This is it, I thought. I'm about to bag the biggest buck I've ever seen while hunting.

Although the wind was blowing directly from me to the buck, he apparently did not detect my scent, because he made a beeline for my tree without ever picking his head up off the scent trail. When the deer went behind a tree 25 yards out, I drew back my bow and shuffled my feet into position for the shot. That's when disaster struck.

My left foot nudged one of the gloves that was supposed to be in my pocket, but was instead on the floor of my stand, over the edge. The strong wind carried the glove toward the buck as it floated toward the ground. When it hit, the buck stopped dead in his tracks. His vitals were mere inches from being visible beyond the tree. In what seemed like one fluid motion, the buck looked at the glove, then right up at me,

and wheeled around without ever giving me a shot. My glove cost me that buck. Yes, details matter.

The consistently successful bowhunter is the one who thinks of every possible thing that could go wrong during a hunt ahead of time, and comes up with remedies for each. It's a demanding chore that taxes both the body and the mind. It requires the hunter to be fluid during the season — to adapt on a daily basis if needed to the changing conditions in the particular woods hunted.

There aren't enough pages in the dictionary to list every single problem a bowhunter might encounter in the woods, but here's a look at some general things to watch out for.

Equipment

Inspecting your equipment thoroughly before each bow season, and generally before each foray into the woods, is one of the most important checks you should make. It's one of the few things in the hunting scenario that is entirely under our own control, and yet many archers take it for granted that everything's as good as it was last year, or the last time they went out.

Have your bow examined at the pro shop before the season for any worn or broken parts that might need to be replaced. Look at your broadheads to make sure they're razor sharp, and test your arrows to make sure they're all straight and that the fletchings haven't separated from the shafts. Each day before you head into the woods, take a few minutes to make sure nothing has happened to your gear. You'd be surprised how things can get thrown out of whack by transporting your bow and arrows in the truck, and by hauling them up to and lowering them down from your treestand.

Every time I head out to hunt I draw my bow before leaving home to reveal any squeaks. The woods are often damp in archery season, and moisture and dirt can work their way into any part of your bow. This can cause small squeaks that will be



THE AUTHOR bagged this buck on the morning after a weather front had moved out. Paying attention to the weather was the key in taking the 8-point.

magnified tenfold in volume when the bow is drawn on a deer. Test your treestand before the season, too, to find out if there are any squeaky parts that might need to be oiled. Countless deer have been spooked at the last minute by creaking treestands.

Treestand Placement

There's a difference in selecting a treestand site for rifle hunting and bowhunting. A rifle hunter wants to find a spot where a lot of ground interlaced with many deer travel and escape routes can be covered. An archer has to find the particular trail the deer are using. And that's something that may change from week to week during the season.

Finding fresh sign is a good way to determine the hottest trails, but it doesn't tell you when the deer are using those trails. It

doesn't do you a whole lot of good to be posted over the deer's primary night trail.

Before the season starts I like to sit in my treestand to find the main trails that the deer are using in both the morning and the evening. Once I actually see which trail the deer are using, I'll mark several trees along those paths as possible stand sites. I'll mark trees on both sides of the path, so that no matter which direction the wind is blowing, I can always be on the downwind side.

As I said earlier, you have to be fluid as the season wears on. I might abandon all of my sites selected before the season two weeks into the season if the deer have changed their travel patterns. Use each hunting excursion as a scouting trip to determine where and when the deer are moving.

Something else you want to consider when selecting a stand site is human traffic. Unless you have exclusive hunting rights to a particular woodlot, you have to factor other hunters into the equation. Even if you've discovered during the summer that your area has the hottest deer trail, you probably don't want to sit right next to the main walking trail into the woods. Once the hunting traffic increases, you can bet the deer will find another travel route. Also, don't place too much stock in heavy sign found close to walking trails. If you come across a hot scrape 20 yards off the main trail, think how many other hunters also know about it. I like to concentrate my hunting efforts around sign that's off the beaten path.

But even if I find a good spot that's in a secluded area, and I learn another hunter has also discovered it, I'll move. I refuse to play the racing game with someone to be the first one to a given area. It's counter-productive. You don't know how often that other hunter is frequenting that spot when you're not around, nor do you know how careful he or she is about leaving scent and making noise. I've found it's best to keep moving until you're truly alone.

The Hunt

Details matter the most on the actual hunt. Everything has to be in working order, your stand site has to be perfect and the stars all have to be in their proper alignment to achieve success. We have control over the first two. As for the stars — well, that's out of our hands. That's just another way of saying we need lady luck on our side, because no matter how much preparation goes into a hunt, luck is always a factor.

Your clothes should have been washed with a non-scented detergent, hung outside to dry and sealed in a plastic bag or other container that will keep human odors off them before you head out to hunt. Once in the woods, try to mask your scent with cover scents like raccoon or fox urine sprayed on your boots before walking to your stand.

Selecting the right day to hunt is one detail hunters don't always have the flexibility to consider, due to busy work and family schedules. But if you can pick and choose your hunting days, cold and calm are the weather conditions best suited for fall bowhunting.

During the last week of October in 1997, my corner of the state was whacked with five consecutive days of warm temperatures, high winds and heavy rain. On the fifth day, the forecast called for the front to move out of the area in the afternoon, and predicted calm, clear conditions to prevail the following morning, accompanied by a 15-degree drop in the temperature.

I distinctly remember that upon hearing the forecast I turned to a coworker and told him I was going hunting the next morning, and that I'd get a buck. Twenty minutes after daylight I arrowed a nice 8-pointer. Paying attention to the weather helped me tag that buck.

There's an old saying that goes, "It's the little things in life that count." Consistently successful bowhunters are the ones who transfer that axiom to their sport and pay attention to details. □

The Shooters' Corner

By Don Lewis

Cowboys of the American West immortalized the lever action rifle, but a newcomer was on the horizon.

The Turn Bolt Rifle

THE MODERN sleek factory rifle of today was originally little more than a barrel connected to a wooden pole. In the early 1300s, wooden stocks were called "tillers." The definition of a tiller is "part of a steering system," and the wooden pole or tiller allowed a shooter to hold a rifle and more or less steer it in the direction of the target.

Stock configurations, ignition systems and rifle designs changed as shooting techniques changed. Sometime around 1704, a French engineer named Isaac de la Chaumette produced a rifle that could be reloaded at the breech. I won't go into detail, but it generated some interest and was improved upon by several other rifle builders. The Chaumette system was brought to its fullest development by a Scotsman, James Ferguson. By 1776 Ferguson had overcome many of the problems that had plagued Chaumette's early version, and when Ferguson fired six shots in one minute from his test musket with a group of British officers looking on, the death knell for the muzzleloading rifle could be heard across the English moors.

James Ferguson unquestionably contributed to the birth of the breechloading rifle, but his death at the Battle of Kings Mountain on October 7, 1780, came from an American rifle ball fired from a muzzleloader.

After the Civil War, the lever action rifle held the spotlight in America, mainly

due to the popularity of the Winchester Model 1866, which held 15 shells in its tubular magazine and one in the chamber. Still, from a military view, the lever action rifle had drawbacks. In the heat of battle, it was difficult to operate a lever when lying prone. Yet, with all the lever's popularity, rifle designers were working on a new concept — the bolt action rifle.

Around 1866 Swiss designer Frederick Vetterli produced a bolt action rifle that had a tubular magazine, much like that of the Winchester lever action, and an Austrian, Ferdinand Fruwirth, came up with a similar design. During this period of transition from levers to bolt actions during the late 1860s, Peter Paul Mauser from Oberndorf, Germany, produced a single-shot bolt action that brought the bolt to perfection.

Mauser followed Vetterli's magazine tube under the barrel design, but there were problems with this design, ranging from weak springs to distorted bullets. James P. Lee, a new United States citizen from Scotland came up with the idea of a box magazine directly below the bolt. This innovation was accepted and is popular today. Ferdinand Ritter van Mannlicher eventually produced the cartridge clip, which could be loaded into the magazine with one quick push.

Most bolt action fans are familiar with the Mauser 98 action, which was the end result of several other Mauser designs. Step-

ping back to 1867, Peter Paul Mauser and his older brother Wilhelm tried unsuccessfully to sell their bolt action design to the German military. A Remington representative, Samuel Norris, joined in a partnership with the Mausers, and received a U.S. patent sometime around 1868. This action was called the Mauser-Norris and is supposed to be the first Mauser action to bear the Mauser name. Apparently, the new action failed to generate interest with the military or major firearm companies, but they hit pay dirt with the Model 71, a revised version of the 1868. A later model known as the M71/84 along with the Model 71 were produced by the thousands, and many are still in existence today.

There are two basic types of bolt actions, the straight pull (Schmidt-Rubin design) and turn bolt (Peter Paul van Mauser design). A bolt handle operates the bolt. The turn bolt system is the most common and is operated by being rotated manually into a locked position by its handle.

Paul Mauser kept improving his actions and reached near perfection in the Model 96 Swedish Mauser. But several years later, the Model 98 action was introduced, which still stands as a testimony to Paul Mauser's insatiable desire for perfection.

The M98 Mauser action is machined from a solid steel forging, and the recoil lug is an integral part of the receiver. The receiver ring (front of the action) is threaded with V-type 55-degree angle threads (American rifle makers normally use 60-degree V-type threads). When the barrel is threaded into the receiver ring, it butts against the ring that acts somewhat like a backstop and also surrounds the bolt head. The only cut in the ring is the extractor slot.

The bolt is also machined from a steel forging and has an integral bolt handle. Two opposing locking lugs are up front; the right one is solid and the left is slotted for the ejector to pass through. The M98 Mauser bolt has a third lug at the rear of the bolt handle. It aligns with the right



THE BOLT ACTION rifle is extremely popular with hunters. And why not? It's accurate, reliable, offered in a wide variety of calibers and accepts a scope well. Jason Troutman, Dornsife, had no trouble taking this Potter County 8-point with his Ruger Model 77.

front locking lug.

Some hunters are confused over the term large ring and small ring Mauser actions. I'm often asked what the difference is. An action with a 1.410-inch diameter receiver ring is known as a "large ring Mauser." The large ring action is what most sporting rifles are built on. The small ring actions have a receiver ring diameter close to 1.300 inches.

While the two terms may be confusing, the actions are not hard to distinguish. On the small ring Mauser the left side of the receiver is straight, including the wall of the action. On large ring actions there is more metal on the wall, especially where the wall joins the receiver ring. It's only common sense that the large ring actions are much stronger, because they have more metal surrounding the sides of the barrel shank and the locking lug recess areas. I don't know how much stronger a large ring

action is over a small ring action, but I do know the Germans used small ring actions for the 8mm military cartridge rifles.

I have barely touched on the famous Model 98 Mauser, and because this particular action has been in production for so long and by hundreds of different rifle makers, it's understandable that not all 98 Mauser actions are exactly alike. For instance, different manufacturers used different thread pitches. Here again, this is a story in itself, but it must be remembered that the barrel must butt tightly against the inside receiver collar, instead of the shoulder on the barrel butting tightly against the front of the receiver. In fact, it literally takes a custom gunsmith to make the two-point fit. That is, having the breech end of the barrel firmly against the receiver collar, and also having the shoulder on the barrel neatly against the front of the receiver. The 98 Mauser action is the action all others are judged by.

There's no question that Winchester's Model 70, both pre-64 and later models, have a large following of admirers. However, before touching on the Model 70, let's take a quick glance at its predecessor, the Model 54.

Around 1925, Winchester produced its first bolt action high powered rifle in the Model 54 action. I doubt if I'm getting off base by saying that the Model 54 carried some features of the 98 Mauser and Springfield actions. The Model 54 lasted for about 11 years before being replaced by the Model 70. Winchester ironed out most of the problems of the Model 54 during its short life, but the action had some outstanding features, such as large unslotted locking lugs, a super extractor and high quality steel throughout. Maybe the Model 54 should be called a transition action, because Winchester more or less used it for a test model.

In 1936 Winchester offered the new Model 70. It took the shooting fraternity by storm and was probably the most popular action of that period. In 1964 Winches-

ter again decided to make certain changes that apparently would reduce manufacturing costs. The new action would start with serial number 700,000, which made all actions bearing numbers below 700,000 pre-64 models, and to this day the demand for pre-64 actions is unbelievable.

The "after 64" model has a shorter action that is not entirely machined, and it has a sliding extractor built into one locking lug and a plunger-type ejector. On top of that, both locking lugs are flush with the end of the bolt. The bolt is a 3-piece part brazed together. These changes caused avid Winchester fans to howl in anguish. Winchester finally heard their cries, and around 1968 some needed improvements were made. One was the anti-bind device that prevents the bolt from binding.

Starting with their Model 721/722 actions, Remington has produced the strongest mass-produced actions available. It's worth noting that both the 721 and 722 actions are exactly alike except for length. The receiver is machined from high quality round bar stock steel. Remington's 725 action was nothing more than a fancied up version of the 721/722 actions. If I recall correctly, its main feature was a hinged floor plate.

Remington now uses the Model 700 action, which is similar to the old 721/722 actions. Even Remington's 600, 660 and XP-100 actions are based on the 722 action. The 700 action is equipped with an adjustable trigger. It's a super trigger when properly adjusted by a gunsmith.

Custom made actions are getting popular with today's varmint hunters and competitive shooters. Names such as Gilks, Nesika, Geske, BAT and Stone are becoming commonplace with precision shooters. For certain factory actions it's possible to have them reworked (action trueing) and lug lapping, etc. These custom actions and specialty work are not inexpensive, but the accuracy gain makes it all worthwhile. The bolt action has certainly come a long way. □

In the Wind

By Bob D'Angelo

Hunting accident statistics dispel the myth that hunters are drunken slobs. In 1995, only 2.1 percent of all hunting incidents that occurred in the U.S. and Canada were alcohol related — 26 cases out of 1,242 reported.

The drug Viagra could lead to a drop in rhino poaching. A major cause of rhino poaching has been the belief of many Asians that rhino horn has aphrodisiac qualities.

Hail the size of golf balls that fell in sections of northern and central Iowa last spring was responsible for killing pheasants. Groups of pheasants were found dead in fields around Colo and Hendrickson Marsh, but large areas were not affected, so the impact on the statewide population of pheasants and other wildlife was minor.

Hunters in West Virginia took 74,050 antlered deer during the 1998 firearms deer season — down 28 percent from the record harvest of 102,484 in 1997.

The Ontario Ministry of Natural Resources intends to end spring bear hunting, beginning this spring, to prevent cubs from being orphaned by hunters shooting their mothers. The fall bear season remains unchanged. Ontario has one of the largest bear populations in North America, estimated at 75,000 to 100,000. A spring bear hunt is held in all other Canadian jurisdictions that have bears, except Nova Scotia. Of the 41 states in the U.S. with bear populations, 27 have bear hunting and six permit a spring hunt.

A nesting female Canada goose has a brood patch on her breast, which she plucks feathers from to place around each egg. As she continues to remove feathers, a naked spot known as the “brood” or “incubation” patch appears.

A population count conducted last winter found between 175 and 180 timber wolves in 46 packs across northern and central Wisconsin. Wolves were considered extirpated from Wisconsin by 1960. They spread back into the state in the mid-1970s, from Minnesota. Protection by the Federal Endangered Species Act allowed wolves to expand and reoccupy former range in the Great Lakes region.

The Fund for Animals has applied for a U.S. Fish and Wildlife Service grant to fund anti-hunting campaigns in America's schools. The grant money would finance anti-hunting videos and CD-ROMS.

1998 was a good year for hunters at the polls. Wisconsin voters overwhelmingly approved a state constitutional guarantee of the right to keep and bear arms, and anti-hunting initiatives were defeated in Alaska and Ohio. Pro-hunting initiatives were successful in Utah and Minnesota. One anti-trapping initiative did pass in California, however.

Answers: C, T, B, C, T, C, B, B, T, C.



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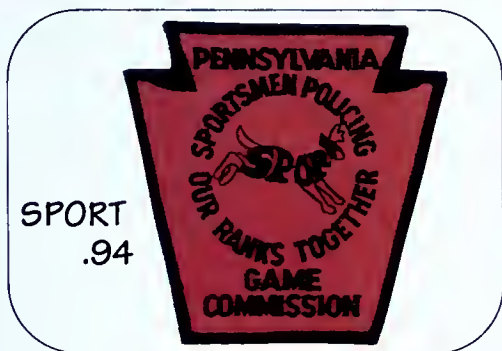
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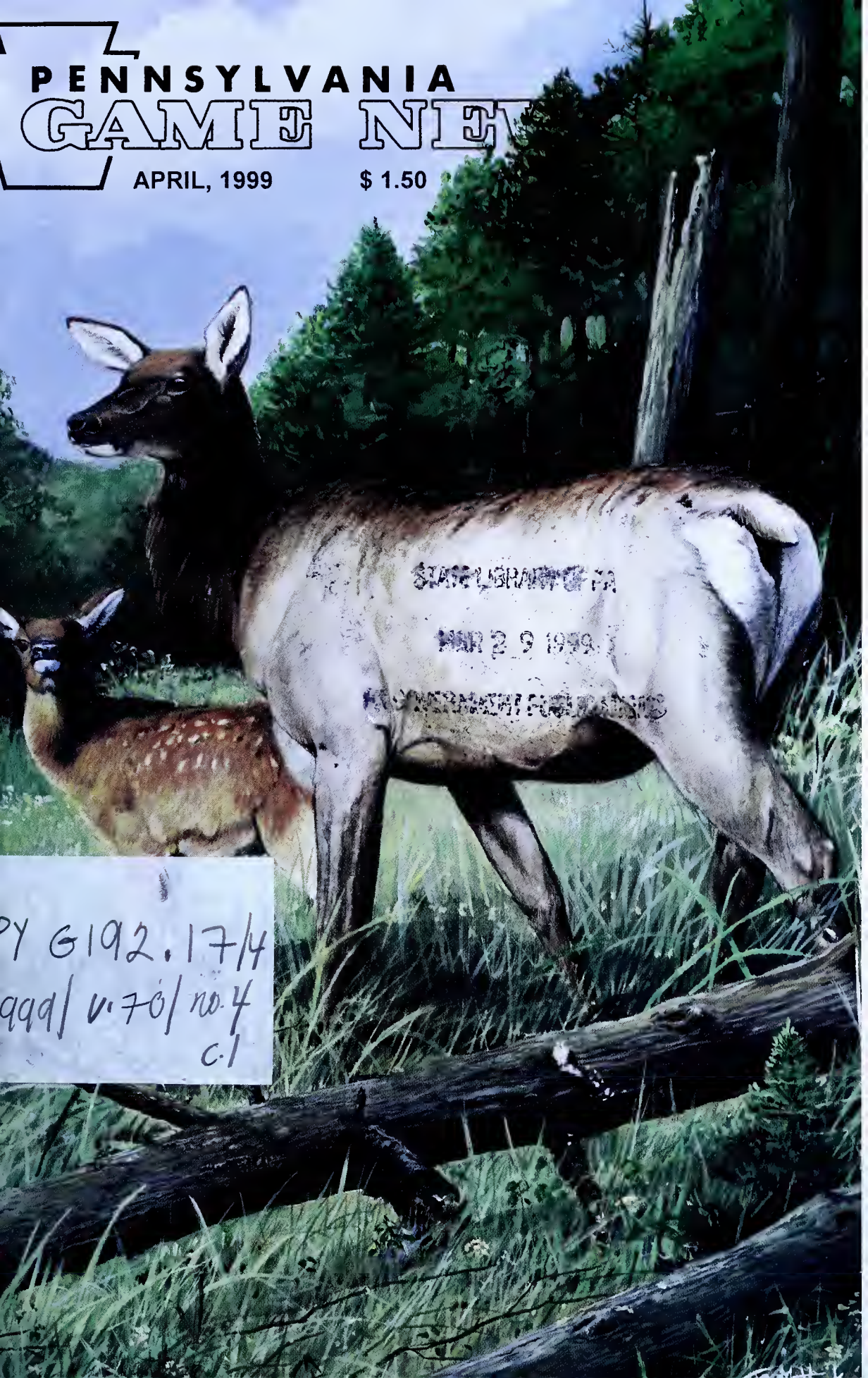
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PENNSYLVANIA GAME NEWS

APRIL, 1999

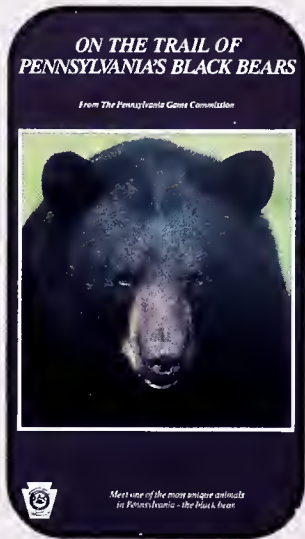
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Let Us Know

HOW DO YOU FEEL about buck season opening on the Saturday after Thanksgiving? Doe season opening two weeks later, again on a Saturday, and lasting through the following Saturday, making for a 7-day season? How about being able to hunt small game the week before Christmas?

Hard to imagine? Recent years have seen the archery season extended two weeks into the rut, late small game seasons extended through January and into February. Last year pheasants and rabbits opened two weeks earlier than in the past. And for this year the commission is proposing a 3-day antlerless deer season for flintlock hunters in mid-November.

In many respects, though, hunting seasons have remained unchanged for about as long as most of us have been hunting. Buck season opens the Monday after Thanksgiving, antlerless season two weeks later, and for two or three days. But there's also every reason to believe that a season structure developed 50 or more years ago could be modified to better meet the needs of hunters today.

Commissioner Sam Dunkle has taken many of the comments he's received over the years and put them into a new framework of seasons. His proposal appears on page 45. For this example, 1999 dates are used, but this is just as an example: These seasons **will not** be enacted for 1999.

Highlights include a regular small game season in which every species (except migratory game birds) opens on the same day, in mid-October. Then, in addition, small game season would be open from the end of the antlerless season until Christmas, and then right after, like it has for years.

Perhaps the most significant change would be opening buck season on the Saturday after Thanksgiving. This, along with the opening of the antlerless season two Saturdays later, would appeal to those who have to take off from school or work. Antlerless deer season would be seven days long and include two Saturdays.

This proposal has a lot of merit. From a management standpoint biologists feel the longer small game and antlerless seasons will not jeopardize game populations, and the five Saturday openers would give more hunting opportunities to many people.

On the other hand, opening buck season on the Saturday after Thanksgiving would conflict with the opening days of deer season in surrounding states. This would affect Pennsylvania hunters who travel to those states as well as nonresidents who come here. A Saturday opener would also affect Thanksgiving holidays for many hunters and their families.

This concept is not set in stone. It's just a starting point to see how much interest there is in making changes. Information packages are available to anybody interested in commenting on this concept. Packages include a template of Dunkle's Concept, like on page 45, and a worksheet on which people may record their own season preferences. To receive this package or to make recommendations, write: Pennsylvania Game Commission, Attn: Dunkle's Concept, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

Let us know how you feel about this suggestion or of any other ideas you may have. We hope to hear from you. — *Bob Mitchell*

letters

Editor:

"Anton's Wilderness" was a wonderful historical account. Mr. Rice did a great job writing and illustrating the article.

J. DILLER,
CAMP HILL

Editor:

Reading Steve Liscinsky's "The Last Hunt" in the December issue made me feel as if I was sitting beside him, reflecting on my own past hunting experiences. From my first squirrel, when my brother thought I had shot myself because my nose was bleeding from the kick of the 12-gauge, to my first buck and the many rabbits, and all the good friends, it all came back.

Thanks, Steve, for the stroll down memory lane.

S. YANCIS,
WILKES-BARRE

Editor:

Allowing junior hunters to take a buck or a doe on the Saturdays of buck season is a good idea, but I think it should be expanded to include disabled and retired hunters. After all, it was those folks who taught us younger people about the hunting tradition.

J. FAGLEY,
BUTLER

Editor:

Completing my 50th year of rabbit hunting, I would like to thank the Game Commission for extending the small game season. Although it was unusually warm and dry this fall, the additional two weeks in

October provided many enjoyable hours.

I don't think the extended season increased hunting pressure, either. Even on Saturdays we often had 2,000 acres of state game lands all to ourselves.

H. EDMISTON,
FRANKLIN

Editor:

I was glad to read that your land acquisition program is back on track. I was wondering, though, if the commission could implement a mandatory or voluntary conservation stamp to raise money for even more land acquisitions.

J. Ruppe,
Phoenixville

Your idea has merit, but it would take legislative action.

Editor:

This is to say thanks to the PGC personnel who helped me and my uncle get our bears to a check station. If our license increase is used to employ people this helpful, it was not enough.

L.L. POLIZIANI, JR.
EXPORT

Editor:

State game lands are very important these days. An awful lot of good rabbit patches have been paved over in the last 50 years. With posting and development making it harder and harder to find a place to hunt, we all desperately need

better land use plans.

I think there should be a place on our hunting license application where we can add \$5 or \$10 extra for land acquisition.

C. HAGERTY,
GEORGETOWN

Editor:

As hard as it is to believe, my 3½-year-old daughter looks forward to opening each issue of *Game News* when it arrives. Her biggest request is to see more deer.

D. RAKOCY,
ENOLA

Editor:

In the 1997-98 Small Game Survey, the author concludes that the decline in small game harvests is due to fewer hunters and fewer hunter-days. I think there are fewer hunters now because small game has become so scarce.

I participated in the survey, and I think it would be better if it included space for comments.

A. PISANESCHI,
LAKELAND, FL

Editor:

I hope the 3-day antlerless season for flintlock hunters is adopted. Having a season earlier, when the weather is much more comfortable, would be appreciated by many of us who are getting up in years.

J.R. FOULKS,
CLARION

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**



Back to Class

By Jack Rodgers

LET'S GET this straight right from the beginning: I am not a turkey hunter.

I know there are turkey hunters, dedicated souls who can rise at 3 a.m., unerringly navigate to a hotspot in the dark woods and lure in a lovesick gobbler. I know there are hunters who, after having a strutting, deafening gobbler approach, can with steely nerves raise their gun and calmly make the shot. But I'm not one of them. Not yet, anyway.

I've managed to down a few fall turkeys, but the spring season had never been my thing. It just didn't seem like hunting season, with its blooming laurel and twittering songbirds. Now, take November, with its gray background and sleet; that's a hunting month. A shotgun in my hands during May seemed as out of place as a frog in the office party punch bowl.

That all changed with one visit to Bort's Chain Saw Shop in rural Berks County. Lee Angstadt, a retired deputy game protector, was telling the assembled group about the local turkey population. "We've got to do something about all these turkeys," he said. And he was looking at me when he said it. Others in the group had done their best to thin the local ranks. It was, they decided, my turn. Certainly, there are a bunch of the darn birds around. They were everywhere during the previous deer season. They had become somewhat of an annoyance, crunching around unseen over rises, startling standers when flushed from deer drives. We were seeing more turkeys than deer, more turkeys than squirrels for

crying out loud. And we weren't alone.

"There has been an explosion," confirmed Game Commission biologist Bill Drake. "Not just in the southeast, but in other nontraditional areas of the state as well."

Just what was going on? When I was a kid the pheasant was king. The sight of a turkey would result in a long line of cars pulling over to glimpse the rare bird, complete with fathers holding kids on their shoulders to see. Today, the reverse is true.

"That's pretty much right," Drake agreed. "You could say that the rise in turkey numbers occurred when pheasants declined." Bill Drake explained that there has been a radical change in habitat in many areas of the southeast, including Berks County. One difference is an upswing in development and loss of farmland. Some of that farmland is now reverting to early succession stages of forestland, such as shrubs and brush. The combination of this brush stage with woodlots and the remaining active farmland is ideal turkey habitat.

"We used to think that the best turkey habitat was broad expanses of mature woods," Drake said. "But now we know that turkeys actually do better in a combination of habitats. While other biologists have their own breakdown, I'd say that 60 percent wooded habitat, 20 percent active agriculture (pasture, cropland) and 20 percent reverting farmland seems to be the best mix."

Harvest numbers bear this out. Spring turkey hunting in Berks County gets better each year. In 1992 about 216 gobblers were taken in the county. In 1994 the total climbed to 466, and the '96 tally reached 756. With growing numbers such as these, I agreed that 1997 would be my first spring season.

It wasn't until the third week of the season that I could break away from my job to enter the realm of the spring gobbler. Sizing up my woefully inadequate gear, I realized there was nothing left to do but throw myself on the mercy of my friend Richard Angstadt.

Soon after, surrounded by a throng of observers at the Saw Shop, Richard handed me a worn box call. I stared at the device as if it were an atom splitter. Mustering what was left of my pride, I asked the obvious question. "How, uh, how does it work?"

"I don't know how it works," Richard broke in, dashing all hopes of a quick lesson. "Heck, if you can call ducks, you can call a turkey. Go ahead, try it."

Gripping the lid, I made a tentative swipe across the top of the call. A sound, somewhat

like a turkey, issued forth. Encouraged, I made a more aggressive attempt that sounded like a third grader erasing a blackboard. Horrible! Amidst the laughter of the audience, I tucked the call into my pocket and beat a hasty retreat into the softening light. This was going to be harder than I thought.

Long into the night I practiced. By the time I went to bed I felt proficient enough to give it a whirl. The next morning, however, my confidence was dashed when I awoke to a pounding rain. I'd like to say that I remembered all the advice about turkeys feeding in the rain, or *Game News* tales of heroic turkey hunters bagging their bird in inclement weather, but I shut off the alarm clock and went back to sleep.

I awoke later to sunlight streaming in the window. Thrashing out of bed, I climbed into my camo and headed for one of the properties I had permission to hunt. An hour later I sat with my back against an ancient oak. The tree sprouted

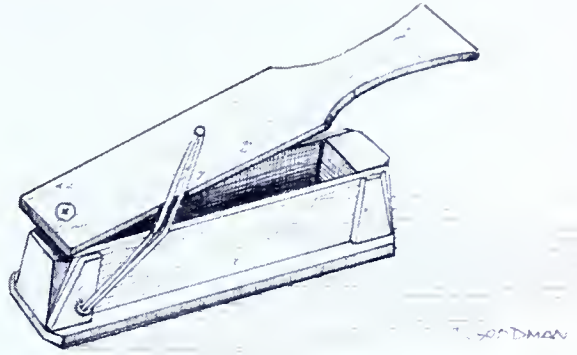


from an old stone wall overlooking a small field on a ridge. Experts claimed that turkeys often use fields during wet conditions, and I had often seen birds in this area.

The field was dazzling, sparkling with sunlit water drops, and the sky was washed clear of spring humidity. I cautiously worked the call. The sound broke remarkably loud across the landscape. I worked the call for a long series, waited, then called again. Nothing. No earth shaking gobble from the valley below, no strutting boss tom entering the field. That was what I had expected, though. I put the call aside, took out a notebook and balanced it on my Remington 870. It was a fantastic place to write. I jotted down notes and wondered about the people who built this wall so long ago. What were their thoughts, dreams and motivations? As I pondered these settlers, I glanced back at the field. There was a turkey not 25 yards away. I'm ashamed to admit it, but I dropped the notebook. A gobbler with a long beard stood for no such foolishness from a would-be turkey hunter and quickly vanished. I always knew deer could disappear like magic. Well, they're amateurs compared to turkeys. This bird was like smoke. Then I thought about the call. Fumbling, I called with the plaintive desperation of a man who knows he has squandered an opportunity.

Storing my notebook, I took a quick walk around the perimeter of the property, calling as I went. And I got responses. Its amazing how the sound of a gobbling turkey — ignored while trout fishing — could be so different and electric now. I set up and called some more, but I never saw another feather.

Walking back to my truck in exhilarated defeat, I remembered Bill Drake's explanation of the trap-and-transfer program. Amazingly, all of these Berks County turkeys probably originated from a group of 23 birds transferred here



between 1984 to 1987.

"Certainly, some could have moved in from adjoining counties, but it's not uncommon to have only a few released turkeys result in a big population," explained Game Commission biologist Bill Palmer. "The key is to release good quality birds. The wild birds we transfer are raised by smart wild hens."

I met with Rich Angstadt that night, and he said we'd try one of his spots the next morning. "I don't know whether we'll see one," he explained, "but we're darn sure going to hear them."

Sleep came easily that night. The morning was warm and still, and the woodlot so familiar from past deer seasons was reassuring yet different. A spring fragrance hung in the air and songbirds were singing. Leaves sprouted from the trees, and the world seemed more relaxed than during the winter. Richard took up a position above me on a ridge, and I settled in below him. We waited for daylight.

Imagine hunting in the southeast corner of the state, closer to malls, outlets and highways than unbroken forest, and knowing that so many turkeys were around. And hard as it is to believe, there are even more turkeys in the western part of the state.

"Yep," Bill Palmer laughed, "I

know it's hard to imagine, but there are actually more turkeys in western Pennsylvania."

I didn't have a clue as to what people in western Pennsylvania thought about the sudden flood of turkeys, but if they were anything like me, they were gaining a new appreciation for the birds, and the chance to extend their season.

Richard started calling and three gobblers immediately sounded off from below. Slowly, the birds worked their way up the hill, gobbling as they came. I could hear them in the leaves. Inching my gun into shooting position, I waited with a pounding heart. I saw a head and then the body of a turkey. Strutting and fanned out, the bird's beard was clearly in sight. I placed the shotgun bead at the base of the gobbler's neck, but before I could shoot, another bird moved directly behind the tom I was lined up on. Fanned out, the turkeys reminded me of old wooden battleships with spread sails. When they stretched their necks and gobbled at such close range it was absolutely deafening. The gun became heavy and the sight wa-

vered. Out of the corner of my eye I saw a third bird ease up. This turkey wasn't strutting or gobbling; it seemed to be sneaking past the other two, and it had the longest beard of the three. I slowly shifted the shotgun in his direction and waited for a closer shot.

Richard didn't know the turkeys were that close, and he didn't know

There is something special about walking down a woods road with a good friend on a warm morning in May.

I was getting ready to shoot. A rock he had been sitting on began cutting off the circulation to his legs, so he took that inopportune time to move. Just as I was ready to pull the trigger, the turkeys began putting and moving off. I swept the muzzle in front of the third gobbler's head and pulled the trigger. At the

shot, wings thrashed and flapped as two gobblers beat skyward. I hurried to where I was sure my prize lay in the greening forest floor, only to see the gobbler running away unscathed.

There is something special about walking down a woods road with a good friend on a warm morning in May. And if it weren't for spring gobbler hunting, many of us would miss it. While walking back to the truck, I realized that instead of having a turkey in my grasp, the turkeys had me in theirs. I was captivated by this spring turkey hunting. □

COVER PAINTING BY JOE MATTOCK

IN LATE SEPTEMBER into early October the resonant sound of bugling bull elk — full of vim and vigor — can be heard echoing through the valleys of Pennsylvania's elk country. But on this month's cover Joe Mattock depicts a gentler side to our largest game animal. The cow elk's gestation period is approximately 8½ months, and the calf or calves — occasionally there are twins — appear by the end of May or early in June. Calves mature quickly, and they can follow the cow around only two days after being born. The summer coat of a mature elk — acquired in April through July — takes on a reddish hue, and the animal appears trim and muscular at this time of year.



The Osprey's Return

By Connie Mertz

LOOK at that," Ken said as he came to a screeching halt. "Isn't that an osprey?" I gave him an inquisitive look of doubt. Ospreys in Montour County, and only two miles from our rural home. It was too good to be true. By the time these thoughts raced through my mind, Ken had grabbed his binoculars and confirmed his suspicions. Sure enough, I noticed the obvious crook in the 5-foot wingspan and the dark brown and white coloration.

We stared for several minutes and watched its every move. Suddenly it dove into a small pond, then emerged after a few seconds with a fairly large fish in its talons. Taking it to a lone snag along the edge of a woodlot, the osprey ate its catch. What a delight to see such a rare species practically in our own backyard.

In the early 1900s ospreys frequented

Pennsylvania's waterways, but habitat loss complicated by pollution and pesticides drove the osprey from Pennsylvania as a breeding species. Ospreys were considered extirpated in PA in 1980 — the last definite historic nesting occurred in 1935. That same year a hacking program was begun to reintroduce this magnificent bird. Dr. Larry Rymon of East Stroudsburg University became project director, and he along with countless college students and other volunteers are responsible for the osprey's return.

The comeback is the result of a hacking program that encourages young ospreys to return to their natal nesting areas as adults to breed and raise their own young. A falconer's term, hacking is the method of plac-

ing young birds in a semi-wild environment and providing food until they can fledge and support themselves. Starting in 1980, 4- to 6-week-old ospreys were transported mainly from the Chesapeake Bay region and placed in hacking towers at specific locations in the state. The results are impressive.

Dr. Rymon credits the osprey population upswing to these continuous releases, and monitoring of the young birds until they return and breed on their own. "Ospreys have a great fidelity to their natal site or birth place. They come back to the same nest year after year," he says. He notes that the oldest pair of ospreys in Pennsylvania is 15 years old. Their young have produced young of their own.

In 1986 there were only six nesting locations with 11 pairs of ospreys that fledged four young. According to the annual report for 1996, 45 adult ospreys returned to release sites during the breeding season.

Several new pairs returned to Tioga-Hammond where three pairs produced seven young. In the Poconos, 13 active nests produced 24 young. All three hacking areas — the Pocono's, Tioga-Hammond and Moraine State Park — showed increases in returning adults. The hacking project at Moraine ended with the 1996 season.

Migrating raptors have been monitored at Hawk Mountain since 1934. Laurie Goodrich, senior naturalist,

says that in general, osprey numbers increased during the 1980s, but seemed to have leveled off since 1992. The 1996 osprey count at Hawk Mountain was lower than average, but she added that all raptors showed a decrease.

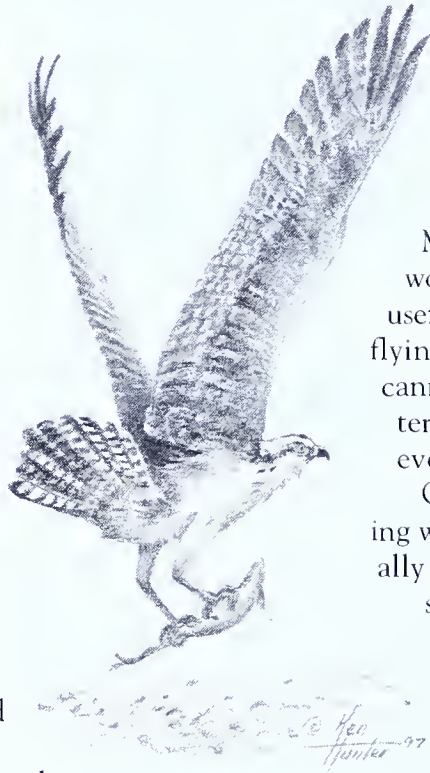
Ospreys that fly over Hawk Mountain usually come from inland lakes and rivers in eastern Canada and New England. One interesting characteristic about ospreys is that they are sometimes seen carrying a fish or parts of fish as they fly over Hawk Mountain. Laurie says, "I would guess this is particularly useful behavior for a migrant flying the ridges, where birds cannot depend on finding water suitable for feeding every evening."

Ospreys are often seen soaring with other raptors, but usually they fly later in the day, sometimes as late as 5 o'clock. An amateur observer may mistake the osprey for an eagle because of its white crown.

The osprey, however, has slimmer wings and body than an eagle.

September was the peak migration month for ospreys in 1996, with 464 sightings. The second highest single day count ever recorded was on September 18, 1996, with 158 sightings. In fact, that same day, between noon and 2 p.m., 58 ospreys soared in the sky at Hawk Mountain. Overall, the 1996 fall osprey count was 568, compared to an average of 648. The overall decrease in raptors may be attributed to the wet spring of 1996, resulting in lower nesting success. The highest osprey count ever taken was in 1990 when 872 were counted. The lowest number of ospreys ever sighted was in 1934 when only 17 were recorded.

The best time to view ospreys at Hawk



Mountain is from the second week of September to early October. Keep an eye on weather reports because the peak fall flights seem to be the first two days after a cold front passes through the eastern part of the

in Tioga County and Moraine State Park in Butler County. Of course, osprey sightings aren't limited to these areas. As ospreys pass through on their way to their breeding grounds, they can be seen practically anywhere along any waterway.

The reintroduction of the osprey was made possible by monies from the Wild Resource Conservation Fund (WRCF), the Pennsylvania chapters of National Audubon, and the Game Commission's Working Together For Wildlife (WTFW) program.

According to Game Commission ornithologist Dan Brauning, in 1998 there were 39 nesting osprey pairs in 15 counties that pro-

duced at least 62 young. With all the positive results from Pennsylvania's hacking program the osprey was recently upgraded from an endangered species to threatened, a move that recognizes the accomplishments that have been made, but that the species is by no means secure as yet. □

U. S. Spring flights usually follow southerly winds before a frontal passage. Dr. Rymon notes ospreys can also be seen during the spring and summer months along the Delaware River near Portland Power Station in Portland, Pocono Lake area near Route 940, Francis Walter Dam at White Haven, Tioga-Hammond dams

in Tioga County and Moraine State Park in Butler County. Of course, osprey sightings aren't limited to these areas. As ospreys pass through on their way to their breeding grounds, they can be seen practically anywhere along any waterway.

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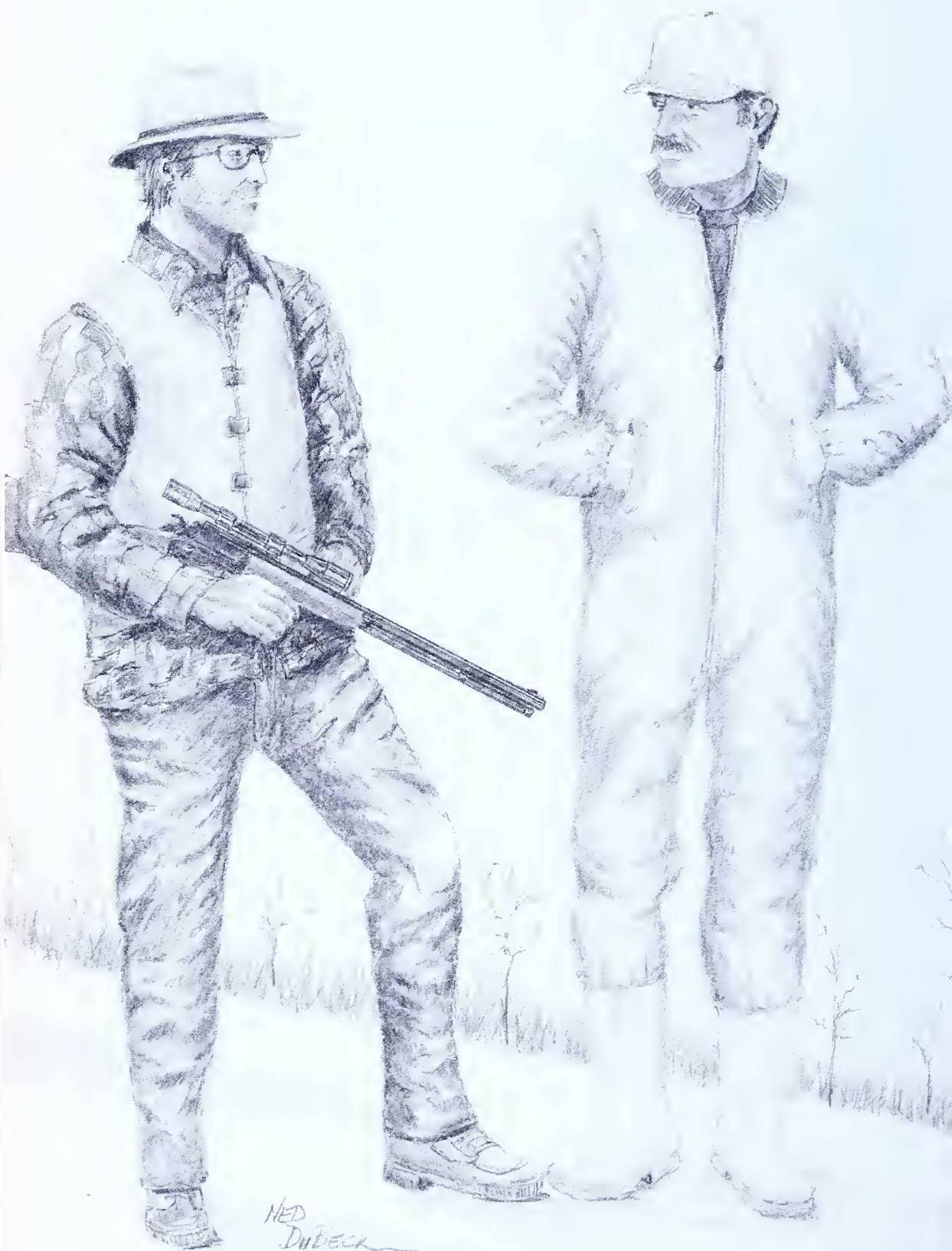
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What's it Worth?

By John D. Valko

“WHAT'S IT worth?”

That simple question was partly answered with a wide grin from Mitch, who has a strong interest in antiques.

I found the bottle one warm summer day when the rushing water of the mountain stream cleared away just enough sand and gravel to expose its mouth and neck in the shallow water. The bottle was obviously more than just a few years old, having no external threads for a modern aluminum cap, but rather a smooth tapered neck to accept a conical stopper. Vaguely recalling stories my grandfather had told me about long ago timbering operations in the area, I let my imagination conjure up a vision of how the bottle may have been deposited in that back mountain run by some flannel-shirted lumberjack with a handlebar mustache and arms like a linebacker's.

“It's worth whatever somebody is willing to give you for it,” he replied, not so much in noncommittal aloofness as in matter-of-fact reflection of 1990s American society. Mitch went on to explain that the bottle wasn't really all that rare, accounting for its minimal monetary value.

Monetary value indeed. Why must everything be valued in terms of dollars and cents? It's such an error of simplicity and narrow-mindedness to dismiss without so much as a passing thought the value given objects and memories through human sentimentality.

I found myself thinking those same sentiments during the second day of the '95 antlerless deer season. I had just met a veteran hunter while trying to move deer towards my wife, Diane, and stepson, Kip, who were farther north on the ridge top. His grizzled beard, plaid Woolrich coat,

chew of tobacco and Model 336 Marlin nestled in the crook of his arm sent me reeling back 30 years. Except for his fluorescent orange hat and vest, and the variable power scope on his carbine, he could have been any of those men I revered so long ago as a budding hunter in deer camp. Perhaps it was just the idealism of youth or the influence of my father, but such hunters commanded my respect and honor because they were, well, respectable and honorable. They were seasoned hunters.

I knew innately how the whispered conversation would go. Even though I disturbed his stand, there would be no glares or words of disgust, no suspicious sidewise glances of the guilty or terse contempt of a rookie desperate for a kill. The cheek numbing bite of the 10-degree temperature subdued our simultaneous grins.

“Seen any?” I asked.

He voided a mouthful of warm brown juice that trailed steam for a second before it hit the snow. “Nah.” Had a few running here yesterday, though. How 'bout you? Get one already?”

My lack of a firearm drew his attention. “Took one in archery season. Just trying to stir up some for my wife out on the ridge. What ya totin' there, .30-30 or .35?”

His gaze shifted to the carbine comfortably resting across his arm, its bluing and stock finish worn with a charm completely befitting his bearded countenance. In a suddenly subdued back-of-the-church voice indicating that

reverence was in order, he replied more slowly without looking up, “.30-30. Been using a .264 Winchester Magnum, but the boy borrowed it a while back. He still has it, so I thought I’d take this old thing out again.”

His eyes never lifted off that gem of steel and walnut cradled where a newborn baby couldn’t have been held more tenderly, and I could feel that old Marlin work its magic. I wasn’t with him when he bought that Marlin or when he harvested deer on innumerable past hunts, or carefully pulled it from its place of honor in the gun rack to proudly show it to friends. But those memories were there in his eyes to be seen and recognized and shared by anyone who has been there himself.

We grinned again as we wished each other the customary parting, “Good luck.” In a few short minutes we had met as strangers and separated as comrades in the centuries old brotherhood of hunters, hastened there by

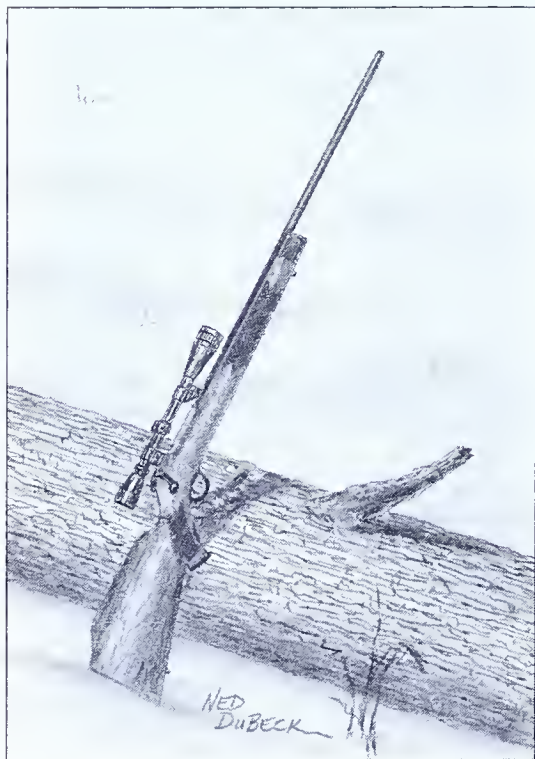
the sweet aura of that carbine and what it represented. It was there, somewhere between the heart and brain, mutually felt and understood with no need to have been spoken or heard.

As I looked back to the north, sidling up the snow-covered slope in the general direction of where Diane and Kip were posted, I mused in pleasant daydream about that .30-30. What’s it worth? Would Mitch the antique dealer’s, “Whatever somebody is willing to give you for it” apply? Not even close. I was certain the owner’s answer would be the same as mine, and dollars and cents didn’t enter into it.

Boom! The shot jolted me out of deep contemplation. It seemed to have come from the north, not from the old-timer I had just left to the south. Besides, it didn’t have that .30-30 crack and sounded farther away. I anxiously awaited a second shot that might confirm the direction but it didn’t come.

Dare I allow myself to think that it was Diane or Kip who shot? The shot seemed to have that reverberating boom of a .308. But I didn’t want to get my hopes up only to be disappointed later. Nonetheless, I stepped up my pace, convincing myself that the shot emanated from down in the bottom and not from Diane and Kip’s ridge-top stand. I tried to maintain a meandering kick-em-out-of-their-beds movement through the second growth thicket on the side of the ridge, but found my boots following each other on a beeline for the top. Finding out whether Diane or Kip got their first shot at a deer became a pressing priority not at all mitigated by my feelings of guilt for directing them to sit tight on stand for so long in the brutal cold.

Even at a steady climb it took nearly 20



AS I supervised the field-dressing chore, Diane’s .308 stood in mute testimony to the emotions of the moment, its checkered walnut stock, so pleasing in form and function, contrasting with the bark of the cherry log it rested against.

minutes to reach the top. As I cleared the dense stand of striped maples, the familiar hemlock tree where I had placed a log for a seat came into view. Something's up, I thought, as I came to an abrupt halt. There was only one fluorescent orange figure on the log where I had left Diane and Kip hours earlier. This was only Diane's third hunting season, but she wouldn't have left Kip alone short of an emergency. There was no suppressing a double-time approach and a concerned "What happened? Where's your mother?" once close enough to be heard.

Kip answered both questions by holding up an empty .308 case with one hand while pointing behind him with the other. And there, 35 yards away, stood Diane like a strutting orange peacock, her Remington 700 against a log and a cleanly harvested doe lying at her feet. The 165-grain Nosler Ballistic Tip did its job.

The field-dressing chore was a family affair. Mother and son did the honors in team fashion as I coached from a nearby log. Meanwhile, Diane's .308 stood in mute testimony to the emotions of the moment, its checkered walnut stock so pleasing in form and function, contrasting with the bark of the cherry log it rested against.

It began as a tool when shaping and inletting allowed nature's walnut to be mated to man-made blued steel. At that time, it was a tool of a specific calculated commercial value, but still just an implement. Now, with its butt stock up to the sling swivel stud in snow, it shared reign with countless other rifles, each attaining some degree of immortality if only in the minds of brothers of the hunt who treasure implements associated with the hunt and the memories they inspire.

How many of its brethren had presided over that oft repeated woodland spectacle — coat hanging on a handy branch, sleeves rolled to the elbow, the jubilation

of accomplishment tempered with the somberness of executing the pact of finality with the animal we so revere? Like the others, it had elevated in ethereal sublimeness from a simple tool to a representation of sights and sounds and feelings now and forever immediately available for replay at the familiar snugness of the shouldered butt-stock or the "home again" feel of the checkered forearm.

With drag rope attached in the middle to leave both ends free for tandem pulling, I teamed with Diane for the mile long drag, but she refused my offer to carry her rifle. I understood perfectly. The bond was set, and it would be near criminal to deny her the satisfaction of its heft during the conclusion of the hunt.

As we toiled, I thought back about purchasing the .308 specifically for Diane, cutting the stock to her length of pull, installing a recoil pad, glass bedding the action, adding a compact 2-7x scope, and easing her from practice loads with 125-grain bullets to hunting loads with 165-grain Noslers. I couldn't resist determining if the "what's it worth" transformation of that Remington had been complete. I felt it, but did she?

So, during one of the increasingly more frequent rest stops I summoned my best poker face and goaded my newly baptized hunting buddy for a response. "You know, Diane, with all the work and accessories I've put into customizing that .308, I could probably sell it for more than I've invested in it."

She shot back her reply like a ricochet off a steel plate, "Over my dead body!"

I had my answer, and a grin that even the cold couldn't suppress. □



Wild Leeks

By George Dolnack

WILD LEEKS, or ramps as they are also known, are much sought after this time of year. A member of the lily family and related to garlic and onions, the tasty wild leek (*Allium tricoccum*) is native to southern Europe and Asia. They were spread throughout Europe by the Romans, and introduced to the British Isles by Phoenecian traders.

In the eastern United States, wild leeks can be found throughout the Appalachia into Maine. They were brought to the U.S. in the 1700s by Welsh, Scottish and English immigrants, who planted them where they settled. They spread over the years as people moved from one place to another, taking plants with them. Floodwaters also dispersed leeks by carrying them downstream. This is why they are sometimes found along creeks in remote areas.

Incidentally, the leek is the national emblem of Wales, and several legends tell how this came into being. One is that St. David advised the

Welsh, on the eve of battle with the Saxons, to wear leeks in their caps to distinguish friend from foe. This tactic apparently helped the Welsh attain victory. The same thing is said to have occurred when Welsh archers fought Henry V's army at the battle of Agincourt. It is also thought by some that the leek was linked to St. David and adopted as the national symbol because of its importance to the diet in days of old, particularly during lent. Thus the Welsh wear leeks on St. David's Day, and Welsh soldiers maintain the tradition of eating raw leeks on this holiday.

Unlike garlic and onions, the leek does not form cloves or a bulb. Instead, it produces an edible round stem up to a half-inch in diameter and up to six inches long. It is also milder and sweeter than either garlic or onion. The size of the wild leek differs greatly from the cultivated leek, which grows up to two inches in diameter.

Wild leeks can be found in many of our forested areas, near streams or springs where the soil is rich and damp. They grow to about a foot high, have wide broad leaves that grow from its small stem, and are collected in the early spring by digging up with a hoe or shovel. After the leaves die in mid-summer, stalks of greenish-yellow flowers appear.

Places where leeks grow are closely guarded secrets by many of those who collect them. These locations are passed down to family members and a few close friends. Across northern Pennsylvania, many churches, fire companies, sportsmen's clubs



WILD LEEKS produce an edible round stem up to a half-inch in diameter. They were brought to the U.S. by Welsh, English and Scottish immigrants.

and other organizations hold fund-raising ham and leek dinners each spring. Ramp festivals are also held in other regions of the Appalachia.

Sylvia Bashline, a native of Potter County, writes in her *The Bounty of the Earth Cookbook* that the first public leek and ham supper in Pennsylvania was held at the Hebron Grange in Potter County in 1934. She says that cooked and raw leeks, baked ham, potatoes and gravy, cabbage salad, rolls and pie were served to adults for 35 cents and to children for 20 cents.

Leeks have a unique flavor and fragrance. It seems that people either like them or hate them. They can be eaten raw or cooked. The aftertaste and smell on the breath is said to ward off evil spirits and vampires. Leeks are known as the poor man's asparagus and are prepared in the same manner as that vegetable. They have been used in the Mediterranean since biblical times, and the Emperor Nero is said to have eaten leeks because he thought it would improve his voice. It is doubtful that they had the desired effect, considering that he fiddled instead of sang while Rome burned.

Washing the soil from their roots with cold water easily cleans leeks. After removing the outer leaves, cut off and discard the dark green tops. Trim off the root tips and rinse in clean water. They are easy to store, too. When cleaned and topped, they can be frozen whole for use throughout the year.

FRIED POTATOES AND LEEKS

Ingredients:

4 medium potatoes

1 dozen leeks, cleaned and topped

Cooking oil

Seasoning salt and pepper

Dice potatoes and chop the leeks. Heat oil in skillet over medium heat. Add potatoes and leeks and cook, stirring frequently until done. Season to taste. (Serves 4)

Some people place leeks in quart jars for freezing, which makes removal easy. Others freeze usable portions in freezer bags. One friend keeps them refrigerated in a jar containing leftover dill pickle brine and snacks on them. Another refrigerates them, uncleaned, in a plastic bag for use throughout the year.

Sandwiches made from a half dozen salted wild leeks placed between two pieces of buttered bread is a favorite way of eating them for some. Leeks also may be baked, broiled, braised, boiled, sautéed, creamed, used in salads, soups, stews and stocks. Leeks are also a main ingredient in French vichyssoise. Recipes using leeks can be found in most cookbooks, and they may be substituted for onions in any recipe. □

LEEK AND POTATO SOUP

Ingredients:

3 medium potatoes, peeled and diced
1 dozen leeks, cleaned, topped and sliced

3 14½ ounce cans of chicken broth,
or 6 chicken flavored bouillon cubes in
6 cups of water

1 cup sour cream

Salt and pepper to taste

2 tablespoons butter or margarine

Melt butter in skillet and sauté leeks until tender. Place broth, potatoes and sautéed leeks in a pot. Cook potatoes until done and then mash with a potato masher. Stir in sour cream and season to taste. If consistency of soup is too thin, thicken with a paste of flour and cold water. Serve hot. (Serves 4)



Backyard Gobbler

By Dave Cooper

I WAS awakened by the most beautiful sound in the world, a gobbling turkey. It had to be close, no more than a few hundred yards from my bedroom window. I knew where the bird was, and I knew where I would be two days later, when the '98 gobbler season opened. Yes sir, I thought, this was it, the year I would finally put my tag on a Pennsylvania gobbler. Then, reality set in. Hearing a gobbler is one thing; bagging one is another.

One beautiful May morning in the early 1980s, a diehard turkey hunting friend of mine, Mark Sherlinski, took me along on a spring turkey hunt, and I became hooked. Before long I had a Quaker Boy slate call, a Turpin yelper and a dozen diaphragm calls. I nearly drove my wife crazy as I practiced yelping, clucking and cackling along with the instructional tape. I rented and watched dozens of turkey hunting videos and read countless books and magazine articles on the subject.

For the first couple of years, I pursued spring gobblers with a passion. I began scouting months before the season began. During the season, I set my alarm for 4 a.m., hunted until I had to leave for work, worked all day, and then often tried to roost a bird that evening. On Saturdays, I was in the woods before daylight and stayed until noon. By the end of every season, though, I was frazzled. I looked and felt like a walking zombie, and I had no turkey. Something always went wrong.

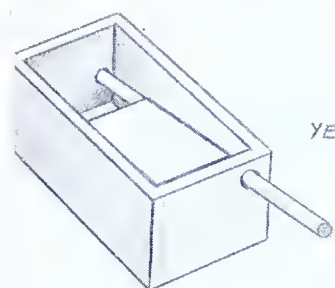
I once had a big gobbler dead to rights 20 yards away, but he somehow sensed danger and flew off before I could get a shot. Twice I had turkeys come in silently behind me. I didn't even know they were there until I stood up and they flew off.

Many times a gobbler would come in to my calls, but hang up 60 yards away and refuse to come any closer. Other times I had other hunters get between approaching turkeys and me. Those guys shot turkeys, while I got extremely frustrated. Gradually, my interest in turkey hunting waned. It was just too difficult and wasn't worth losing hours of sleep to hunt a bird that I wasn't meant to kill.

Then, early in the '90s, the turkey population exploded. Turkeys began showing up where they had never been seen before. I live in a part of Columbia County where many small patches of woods are interspersed with open fields. Turkeys adapted well to this habitat, and seeing flocks became a common occurrence. My interest was revived. I know the woods and fields surrounding my house like the back of my hand. This knowledge, I hoped, would give me the advantage I needed to finally bag a spring gobbler.

When that turkey gobbling behind my house awakened me, I had a good idea where he was roosting. I live in the front edge of a 20-acre patch of woods. Behind this patch is a 40-acre crop field that has a hedgerow on one side and woods on the other three. The turkey I heard was most likely in a tree on the back side of my woods, near the edge of the open field.

The first day of the season found me situated at the base of a large oak tree in the woods behind my house. At first light I made a few quiet tree yelps with my slate call. No response. I gave a few louder yelps with a mouth



YELPER CALL

call. No response. An hour later I decided to move to another patch of woods down the hill in a swampy bottom.

On my way there I ran into my neighbor and his son who had been hunting in the bottom earlier, and had even had a gobbler coming in, but a large raccoon got too near the turkey and spooked it. I hunted in the bottom until 11 o'clock before calling it a day. So much for turkeys being easier to hunt near home.

Each morning during the following week I woke up early to listen for a gobbling turkey. If I heard one, I planned to get dressed quickly and hunt before work. If I didn't, I would wait until Saturday to try my luck again. As luck would have it, no turkeys sounded off the entire week.

On Saturday, I decided to hunt the swampy bottom where my neighbor had seen the big gobbler. Just after sunrise I saw two turkeys fly down from their roost 75 yards away. I couldn't tell if they were hens or gobblers, and they refused to respond to my calls. After hunting there until 10 o'clock with no luck I headed home for a cup of coffee. As I was approaching my house, I heard a turkey gobble in the distance. It sounded like the bird was in the patch of woods across the open field behind my house. It was nearly 11 o'clock. Should I go after the turkey this late, or wait until another day? I decided to wait.

Fortunately, I had off the following Thursday and Friday. I asked Mark, my expert turkey hunting friend, what to do. When I described the field behind my house, with woods on three sides and a long hedgerow on the other, he said that the turkeys were probably roosting in the woods and feeding in

the field. The gobbler's strutting zone was probably in the field, too. He suggested that I set up in the woods where I had heard the turkey gobbling, at a spot near the edge where I could watch the field.

On Thursday morning before daylight I traveled along the hedgerow, and then to the edge of the far patch of woods. I set up in the woods where I could see into the open field. At daybreak I heard a turkey gobble below and to the left of me, and another in the woods across the open field. I called and got an immediate response, but from a hen that walked right past me, yelping loudly. Neither of the gobblers, however, would respond to my call.

Friday morning I was back at the same location but heard nothing until about 9 o'clock, when a turkey gobbled from the woods across the open field. A few minutes later, two turkeys, both gobblers, I figured, stepped out of the woods and headed towards me. I yelped and they immediately stopped and looked in my direction. But when they again started walking, they veered away from me and headed for the hedgerow. I thought about hurrying down the outside edge of the hedgerow to cut them off, but changed my mind. I would most likely spook them before getting anywhere near them. They disappeared, and I didn't see or hear anything the rest of the morning. More frustration.



DIAPHRAGM
MOUTH CALL

Once again I consulted Mark, and he suggested that I try a couple decoys. When those two turkeys heard your call they expected to see a hen. When they didn't, they became suspicious and steered away. "Put some decoys in the open field where a gobbler can see them," he said, and then sit back in the hedgerow against a large tree

to cover your back and see what happens.”

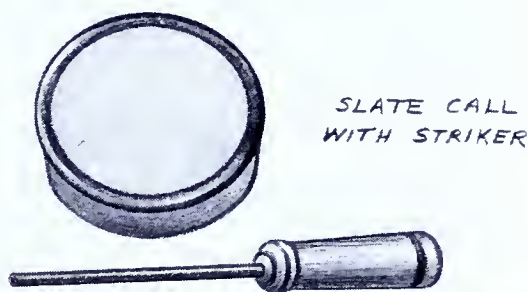
I bought three FlexLite decoys, two hens and a jake. Those decoys looked absolutely real, especially when a breeze caused them to move on their stakes.

The following Saturday I set the decoys in the open field along the woods where I had seen the two turkeys the week before. At daybreak a turkey gobbled in the woods behind me. Great, I thought. He'll fly down, see the decoys, and I'll have my trophy. But the turkey never made another sound, and he didn't come out to the field. At 8 o'clock four turkeys emerged from the woods where I had been a week earlier. Then, to add insult to injury, they worked their way along the hedgerow where Mark had advised me to set up. "I can't believe my luck." I muttered to myself. Perhaps, I thought, I could bring them across the field to the decoys. I called loudly with my mouth call. The birds, nearly 300 yards away, stopped, stared at the decoys, and went merrily on their way down the hedgerow and out of sight. So much for decoys, I thought.

I gathered the decoys and walked across the field. There in the hedgerow was just what I was looking for, a large dead cherry tree. It was big enough to cover my back, yet was positioned so that I could easily see out into the open field. An approaching turkey would have a difficult time spotting me in the shadows and through the weeds that grew around the edge of the field near the tree.

Early on Monday morning, Memorial Day, I set up the decoys in the field, 25 yards in front of the cherry tree. I wrapped an orange band around the tree, snuggled in close to the trunk, pulled down my headnet and waited for daylight. At 6 o'clock I let out a series of soft yelps on my mouth call. A hen immediately started yelping loudly from the woods to my left. She worked her way down through the woods, stepped out into the open field and began pecking at the ground. She continued feeding and yelping for about 10 min-

utes. Then, from over a small knoll came two more turkeys. They hesitated, then walked quickly to the lone hen. I slowly put my shotgun on my knee and let out a series of soft yelps. The birds — about a hundred yards away — jerked up their heads and looked in my direction. The decoys were moving slightly in the light breeze. Two of the birds started walking and then began running to the decoys. As they approached I saw that



both were gobblers. I slipped off the safety and zeroed in on the head of the largest turkey, which was now standing among the decoys. I had to wait a few moments until the other gobbler was out of the line of fire before shooting. When I shot, the turkey I was aiming at dropped like a ton of bricks. The other gobbler just stared at the fallen bird, not knowing what had happened. But when I stood up, he immediately flew off, along with the hen that had stayed in the field.

After all those years of turkey hunting, I had finally taken a gobbler. I was one proud and happy hunter. My gobbler had a 5-inch beard and weighed 16 pounds. It was a jake, but a trophy nonetheless.

This spring I'll be lying in bed in the early morning, listening intently for a gobbling wild turkey. I can hardly wait to match wits with one of those backyard gobblers again. Just thinking about it gives me goose bumps. □

Snow geese . . . Too Many for Their Own Good

By Bob Mitchell,
Editor

Photos by John Plowman

SNOW GEESE are in trouble. They're literally eating themselves out of house and home, and if the problem is not addressed soon, it threatens to destroy the last true wilderness on earth.

Between 1965 and 1998 snow geese numbers grew from 800,000 to nearly six million, and they're still growing. Warmer than normal weather over the past 20 years, an extensive network of refuges on migration routes and wintering areas, a shift from coastal marshes to inland agricultural fields for food, and declining harvest rates from hunting have fueled this increase.

If snow geese are not soon brought under control, catastrophic results will occur. While the crux of this problem is centered around Hudson Bay and the Central Flyway, Pennsylvania and other eastern states have a role in the solution, too.

To share information and ideas, the Game Commission, Ducks Unlimited

and the Susquehanna River Waterfowlers Association hosted a snow goose workshop at the Middle Creek Wildlife Management Area on January 23. More than 250 people packed the visitors center to learn about the snow goose problem and how to more effectively hunt them.

There are two types or subspecies of snow geese, the lesser and the greater. Generally, the lesser nests around Hudson Bay, migrates through the Midwest and winters along the Gulf coast of Texas and Mexico. Greater snow geese nest farther north, along Baffin Island and Greenland, and migrate to the coastal areas from New Jersey to North Carolina.

Right now, most concern is with the lesser snow goose, but the same problem is developing with the greater, the subspecies that's been stopping over in southeastern Pennsylvania in recent years.

When snow geese return to their nesting grounds in the spring, much of the marshy tundra is still frozen. The birds start feeding in the thawed areas along the edge of the wetlands. The birds don't just snip off the sprouting green shoots. They grub beneath the ground surface, actually turning the soil and pulling out the entire plants. The geese have become so abundant that they're consuming vegetation faster than it can grow back. As a result, the tundra is receding. Compounding the problem, evaporation from the exposed areas causes the soil to become so salty that most plants can't survive, which ultimately

A STANDING-ROOM only crowd flocked to Middle Creek to learn about the problem with snow geese and how to effectively hunt them. The one-day seminar was a spin-off of the Governor's Symposium held in Hershey last August.



leads to mudflats. Every spring the Arctic is pushed one step closer to becoming a barren wasteland.

Snow geese begin nesting at age two and may live up to 20 or more years. They lay four or five eggs, but don't reneest if anything happens to the clutch. If weather is bad, they don't nest at all. In recent years, though, because of abnormally warm weather, nesting success has exceeded 90 percent.

Already, because of over population, young snow geese are smaller than normal, there's been an increase in parasites and a drop in gosling survival rates. In time, after remaining nesting habitat is destroyed, scientists expect the population to crash. Polar bears, caribou, shorebirds and all other wild animals that live in the tundra are also threatened by this habitat destruction. It's even thought this is why the James Bay population of Canada geese, which migrate through Pennsylvania, has declined.

According to a U.S. Fish & Wildlife report, in 1996, along a 1,200 mile stretch of coastline along Hudson Bay and James Bay, 35 percent of the original habitat had been destroyed and 30 percent had been severely damaged. Much of this damage is done by migrating geese using the coastline as staging areas on their way farther north. The problem doesn't end there.

Snow geese used to winter along the coasts and feed in nearby salt marshes. In recent years and in growing numbers, though, due to the development of coastal areas, the geese have begun feeding in agricultural fields, where they've learned to relish the highly nutritious crops.

About five years ago, greater snow geese started dropping in at Middle Creek on their way back north. They may show up in December. Numbers peak in February. In 1996, 100,000 showed up at the facility, every day flying up to 50 miles away to feed in winter wheat and harvested cornfields.

The greater snow goose population currently numbers around 700,000. It's pro-

jected to reach one million in the year 2002 and two million in 2010. Biologists would like to keep the population around 800,000 to a million.

Hunting is the only feasible way of controlling the population. It's cost effective — people pay to do it — and it poses no threats to other wildlife or the environment. But to bring the population under control means doubling the harvests, and that's impossible under current regulations.

The first snow goose season was held in 1975. Over the years the harvest fluctuated between 10,000 and 40,000. In recent years the season has been 107 days, the longest permitted under the Migratory Bird Treaty Act, and for the 1998-99 season the daily bag limit was 15 and with no possession limit. Despite the longest seasons and most liberal bag limits allowable, the population is still growing out of control.

In what not that long ago would have been unimaginable, for snow goose hunting in the Central Flyway, where the lesser snow goose population has reached five million, the USFWS and Canada are recommending to allow unplugged shotguns, electronic calls and a season that extends beyond March 10. Baiting and the use of lure crops — fields left to attract geese — are being seriously discussed.

For snow goose hunting only, Maryland, Delaware and several other states are honoring one another's licenses. For Pennsylvania to enter into such an agreement, however, would require an act of the legislature. To help hunters here, the Game Commission has posted on the agency's web site (www.pgc.state.pa.us) up-to-date information on where snow geese are, and a telephone hotline may also be set up.

Enacting national and state legislation to deal with problems such as

this is difficult. Lawmakers are reluctant to enact laws for only one species, and on a temporary basis that's impossible to predict.

Since snows began stopping off in Pennsylvania on their way north, interest in hunting them here has grown. Annual harvests have ranged from a few hundred to a thousand or so, depending on season length, bag limits and the number of birds that show up here. In 1997 the harvest was around 1,500, because of unseasonably warm weather, but the year before, 11,000 were taken. With these new hunting opportunities, however, have also come problems.

Snow goose hunting is unlike any other type of hunting in Pennsylvania. In what was becoming common practice, hunters would wait at Middle Creek and other impoundments until birds lifted off in the morning to go feed. Then, using their cars and trucks, they would follow the birds to feeding areas up to 50 miles away. When the birds landed, hunters then stalked the birds. This practice of using a motor vehicle to locate game is clearly illegal. In most instances, officers haven't been citing people, just informing them that this is roadhunting, and as such, against the law. Further, convoys of vehicles filled with hunters sud-

denly converging on agricultural fields generated a lot of conflicts with landowners, other hunters and just about everybody else who happened to see it going on.

One of the main purposes of the workshop was to provide attendees with better snow goose hunting techniques. Five experienced outfitters shared their snow goose hunting knowledge and tips.

Snow goose hunting is considered the ultimate in waterfowling, because the birds are fast, smart and fly in flocks containing thousands of birds. On the other hand, snow goose hunting is a lot of work; it's not something a person can just get up and decide to do one morning. Because the birds range so far to feed, a lot of scouting is necessary to figure out where they're likely to put down. While stalking does, surprisingly, work under the right conditions, decoying the birds is a much more common technique. But here again, this isn't a simple matter of putting out a half dozen or so dekes. Spreads of up to a thousand or more decoys are required. Most hunters use Texas rigs, which are white plastic bags tied to stakes in such a way that when the wind blows, they fill up with air and look like geese. Texas rigs are relatively inexpensive and easy to set up. These often are complemented by a few magnet rigs, decoys made to look like birds in flight, and other full body decoys. Snows aren't fooled by silhouettes. Setting out such a spread, however, even with a few helping partners, takes hours.

Every snow goose hunter dreams of having a large flock "tornado," spiral down into his decoy spread. More likely, though, is that just one, two or a few birds will come in close enough for a shot. Hunters have to take advantage of these opportunities, but even this may require 50- to 60-yard shots. To make such shots, hunters use 10- or 12-gauge magnums, and extensive field research has shown that BB and BBB are the most effective steel shot sizes for taking snows at long ranges. Modified and improved modified are recommended

GREG FINK, President of the Susquehanna River Waterfowlers Association, shows a spread of Texas rigs with a few magnet decoys scattered about to complement the spread.



chokes. Hunters also spend a lot of time patterning loads and, with 6 shot, shooting at clay birds at long ranges to become familiar with the long leads necessary to make the shots.

Calling is important, the more the better. This is why electronic callers, currently illegal, work so well. It's virtually impossible for hunters with mouth calls to mimic the sounds of thousands of birds. With electronic callers, the birds are eight times more likely to come within shotgun range. Weather is critical, too. Overcast, cold windy days are best.

Opinions vary on what camouflage is best, whether decoys can be left out from one day to the next, and what makes for the best spread design. But there is agreement that snow goose hunting is not a sport for weekend hunters. It takes a big commitment in time and equipment.

This specialized form of hunting brings its own ethical standards. It's too easy, and too common, for hunters to horn in on somebody else's decoy spread, or compete with other hunters on neighboring farms. In general, it's easy to find many hunters trying to hunt the same area. Hunters need to respect one another's set ups.

Snow geese are new to Pennsylvania. Compared to other states, the numbers that drop by here are small. With few flocks, hunting opportunities are much more limited here than in coastal areas where scouting and then setting up big spreads is not such a hit or miss proposition. Another problem in Pennsylvania is that we get the birds on their way back north, after they've been gunned for several months. By February and March, they're experienced and particularly wary, and they've learned to distinguish hunters' calls from the real thing.

The snow goose population is mushrooming, threatening to destroy its Arctic and subarctic nesting areas and all the other



Bob D'Angelo

ARTIST DAN CHRIST, Kempton, shows off his print, "Middle Creek Snow Storm," that he donated to the PGC and is on display at the Middle Creek visitors center.

wild animals that live there. It's thought the lesser snow goose may be beyond the point of hunting having an effect. Audubon and other conservation organizations are fully supporting all the efforts proposed for dealing with this problem. Agencies are going to extreme measures to bring the population under control.

Some have suggested that nature should be allowed to just take its course, but considering that it's been man-caused changes to wintering areas, feeding areas and staging areas that's created the problem, it's going to take man-induced solutions to correct it.

While this problem is centered throughout central North America, Pennsylvania lies on the fringe of the species' range, creating some problems for farmers and limited hunting opportunities for sportsmen. For the time being, though, the snow geese offer a most challenging form of hunting rarely available here, and an opportunity for people to experience the thrill of seeing thousands of these stunning birds take flight, or come winging in at sunset, wave after wave for as far as the eye can see. □

A Good Name for a Dog

By John McGonigle

SAM ISN'T much of a name for a hunting dog. Beau, Tar or Buck seem better. But when we acquired him at five months of age the breeder had already named him.

Just two weeks after his arrival, Sam provided a glimpse of what he would be like. When a wing-clipped pigeon flew farther than expected and landed in a large fallen tree, Sam gave chase, never slowing down, clambering up the branches of the fallen tree until he was 12 feet off the ground. He nearly reached the bird before it flushed again. His birdiness never wavered no matter what the obstacle.

Sam and I worked hard that first year, doing a minimum of 20 minutes of yard work six days a week. After the first six months it was usually two 20-minute sessions each day. A neighbor who lived two yards away (we lived in a row home with a 14x90-foot-fenced yard) used to shout, "Hey John, why don't you give that dog a break." I think he was secretly jealous that my dog was better behaved than his kid.

Every weekend Sam worked birds on a friend's farm, pigeons mostly, pheasants when it was the allowed time to train dogs back then. His nose was average, but his drive was relentless. My wife marveled that he seemed to know when Saturday came around; he quickly connected my putting on my boots, or picking up the shooting bag, with Saturday. And he was always ready.

Sam's breeder, who later became a close



SAM had inherited all the right stuff: intelligence, nose, drive and, most of all, heart. Boy, did he have a big heart.

friend, proved right over time in his earlier pronouncement that the three most important things to teach a hunting dog are control, control, control. You see, Sam's mom and pop had already given him the right stuff: intelligence, nose, drive and, most of all, heart. Boy, did he have a big heart.

For me, hunting was a joy again. Sam may not have found every bird in the area, but he found enough for me and my companions — never enough for him. He never showed prejudice, exhibiting equal fervor for pheasants, chukar, grouse and quail. He handled them all with unbridled enthusiasm.

His first quail hunt was enlightening. He was not a bona fide quail dog and I had never let him work them, so his performance was suspect. That is until he got into the field. I never al-

low my dogs to go wild and waste energy when walking to a hunting spot, so Sam was at heel when we passed a hedgerow that I and two friends had just worked with another dog. Sam's head nearly snapped off his shoulder, so we quickly loaded our guns before releasing him. Poised for action, we were surprised when Sam emerged carrying a still warm dead quail lost from our earlier hunt. Yes, Sam was a quail dog, too.

My first love is pheasants, though, and that suited Sam just fine. Pheasant hunting was in his blood; his pop was reputedly one of the best pheasant finders in the country. Watching Sam over the years, I believe it. Sam could be thrown off track by a runner laying a trail, but not often. There was nothing a pheasant could hide in that Sam couldn't penetrate. Bloodied or tired, he always produced the bird.

Sam had a split personality. A terror in the field, he was mellow — even a bit wimpy — in the home. To Sam's dismay we brought several pups into the home, each one bowled him over, took charge, and remained one step above him in the pack but never in our hearts. Sam was number one and he knew it.

Early on I was ambiguous about field trialing Sam. Fact is, he had the stuff but I didn't. He did well in fun trials, gun dog trials, water trials and hunt tests, but more because of his ability than my training. He was all bird dog. He loved birds and loved us nearly as much. I wouldn't have reversed the order if I could.

Sam's big heart overcame all ob-



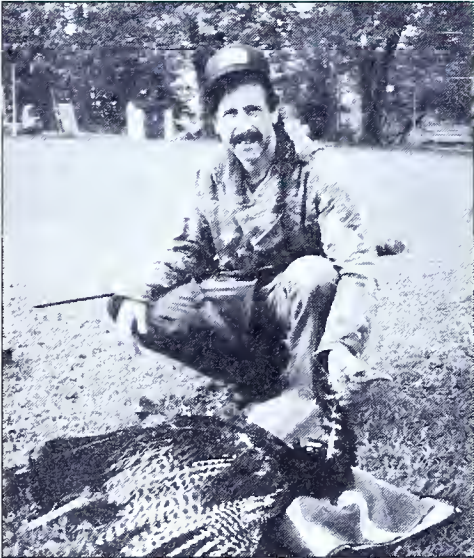
AUTHOR with Sam, shown here with judges Mike Gallelli and Alexis Bradley, when he received his last trial ribbon that made him an AKC Senior Hunter.

stacles, from the thickest cover to the harshest weather, from the most bothersome puppy to being left alone during the day while we went to work. In the end though, and there is always an end, his heart couldn't overcome cancer. It struck swiftly, ravaging his once athletic body. We didn't wait long; not after all he gave us. He's gone, like so many other dogs, and we will miss him forever. And as I'm sure you know, that's only the half of it. □

Gobblin'



BOB MICHAUX, above, and son, **MARK**, below, Donora, got their gobblers in Fayette County last spring. Both gobblers were taken on the same morning from the same stand and with the same shotgun.



RICK KOLESAR, McMurray, got this Washington County longbeard on last spring's opener. The bird sported an 11-inch beard and weighed 21 pounds.



MARLIN MENGLE, Middleburg, left, got his 20-pound gobbler with a 10-inch beard in Snyder County last spring. **CARL DENNIS**, Meadville, above, bagged his gobbler near Union City in Erie County. Way to go, Carl!



Fever



BOB BONNER, Barnesville, left, stayed in Schuylkill County for his 18-pound gobbler. **JOHN BRESNAN**, Greenville, above, got his tom in Mercer County.



MARK BREST, New Castle, left, got his gobbler near Moraine State Park in Butler County last year. **RYAN UPDIKE**, Dillsburg, above, took his gobbler in Clinton County.



Moving Pictures

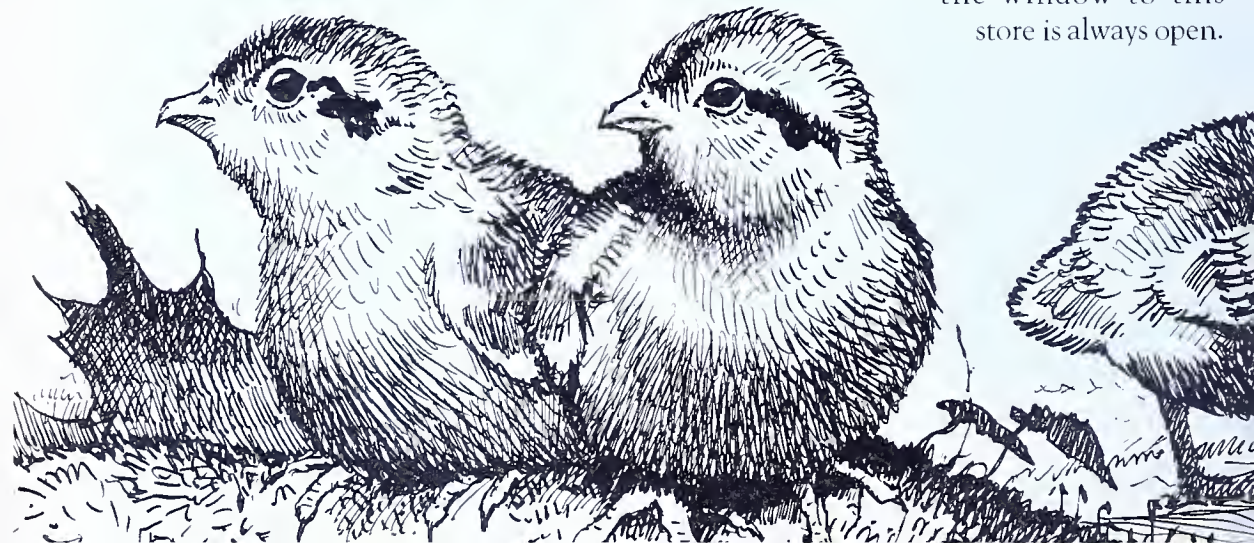
THE MUSIC of percolating water and birdsong and the hum of early flies drift through the greening uplands. A cock grouse walks ever so slowly across a logging road, dark eyes seeing everything, his demeanor almost noble. Up through the bent and dry goldenrod bordering the road, farther up through the slashings, over lichen encrusted rocks — a destination in mind. The grouse winds through a tight maze of beech saplings in a thickening clearcut. Just on the other side of the beeches he approaches a fallen log, the mossy stage for a ritual choreographed eons ago.

The grouse hops onto this primary drumming log and surveys his territory. He is protected on one side by the root mass of the tree, and by a wall of beech trees behind. In front, an amphitheater of hemlocks screen him from the eyes of raptors. The grouse freezes for an instant as a dark shadow humps up and over the log, and his eye instantly catches the harmless silhouette of a raven flying towards the ridge. The cock stands at a right angle to the log, his clawed, reptilian feet dug into the moss, his partly fanned tail bracing him. He starts his performance with three deliberate wingbeats; then, with a rapid, mechanical rotation of flashing wings, air pressure is suddenly compressed and released, creating the familiar drumroll. The sequence lasts nine seconds and is comprised of about 50 wingbeats. The drumming, repeated several times, signals his presence to rival cocks and females.

In the minutes between drumming, the grouse watches and listens. Soon a sleek hen slips from under the low hanging branches of a hemlock into the arena. Instantly, the cock begins strutting. His tail is fanned and displayed towards her, wings drop as the ebony neck ruff erects, reflecting iridescent blues and greens. Eyebrow feathers draw back revealing a brilliant flame-red eye patch. The grouse, with the finest camouflage in nature, uses unique sounds and animated displays to show off his shape and markings. The hen takes tiny steps forward, tail lowered, as the cock turns and struts his finery.

On folded wings a silver streak shoots between a V in the root mass, smashing through the cock's outspread tail like a fist through a paper fan. In the next moment — as it is in the world of predator and prey — the adagio becomes a *danse macabre*. The grouse tumbles from the log. The goshawk that overshot its mark gathers herself quickly, but the grouse is already safe in the beech thicket sanctuary. At this perennial drumming log, one of the hemlocks had died, creating a portal for the raptor's ambush. The cock grouse would now have to use a secondary drumming site, as the goshawk knows that

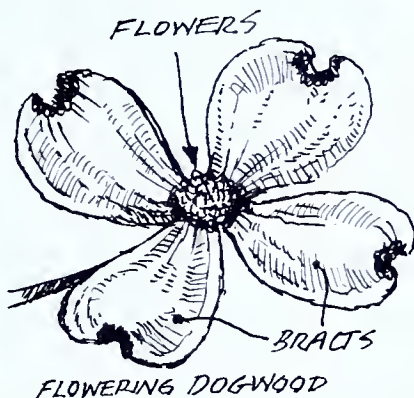
the window to this store is always open.



PENN'S WOODS

SKETCHBOOK

by
Bob Sopchick



In April, the vestiges of winter linger in the greening landscape. There may even be an "onion" snow; large, lacy flakes gathering on fern fiddleheads, melting as it touches the warming earth, lingering for a few hours in the deepest shadows. The transition of winter to spring is like watching the last few frames of an antique silent film spliced into a modern movie with an opening scene of dance and song and a loud and colorful parade.

The reel speeds up and the flurry of images quickens. Life surges. Fox pups scamper back into the den at the warning barks from a parent. Black bear cubs watch as the sow grazes on sweet grass shoots. The pink veins in the white-petaled spring beauty are reminiscent of new blood coursing the fine veins of a newborn cottontail's ear. Woodland pools reverberate with choruses of frogs under the blooms of redbud and flowering dogwood and red maple. A woodchuck soaks up the sun, baking chilled bones not completely thawed from hibernation. Small mountain hollows and great river valleys brim as sun and water draw the blooms and grasses and leaves from the sere land.

A small grouse feather lifts from the drumming log on an evening breeze and is carried high into the uplands. It is all that remains from the earlier encounter. The struggle of grouse and goshawk is high drama when considered alone; but in this unbridled season of myriad moving images in countless woodland theaters, it remains wondrous, but only in its exquisite insignificance.



I WAS SEVEN years old when we went to see the fawns. It was a warm, sunny spring morning and they were in a large fenced enclosure. (I'm fairly certain it was a Game Commission facility.) I was fascinated by their tiny size and brilliant white spots. The man working there said it was feeding time, and let me into the pen. He gave me some glass bottles of formula, and the eager fawns mewed and licked and jerked hard at the nipples as they emptied the bottles in a few seconds. After that, I was as excited as any kid could be, and I wanted to know more about deer.

Growing up, we often watched deer when out on rural drives and on hikes, but it was when they returned to our hill that I had a chance to really study them. The greatest highlight of those days was when I saw a doe give birth to a fawn, on a little flat among the mayapples and witch hazel trees, not a quarter mile from our front door. This was my own personal classroom where I could study their movements and sign and impact on the woods.

After killing my first deer, I saw that it was muscle and sinew and bone and blood — not unlike me. I was surprised by the size and hardness of its heart, and realized that even though I was a teenager, I was not immortal. By eating the deer, I thought I would know something more, as it became part of my body. Eating the deer brought the hunt full circle. By hunting deer in various parts of the state, I learned much about the land and, at the same time, more about myself.

My career dictated that I draw deer, make paintings of them, illustrate them. After thousands of pictures, I am still in awe of their magnificent form and grace. But after all this — the lifelong study and hunting, the killing and eating and drawing and writing and dreaming — some facet of this wild being lingered beyond my perception.

Not long ago I watched a deer run down the mountain, flying past me, and I had a compulsion, a wish, really, that I could run with it. Finally, it struck me that beyond my desire to know the deer there exists an immortal force within that seeks to join with that same force in all wild things. Both deer and man can only follow the course of nature; living agents, mediums, destined to bind, serving then as a junction of all things eternal.

A STARLING HOLDS a bit of food in its beak and is flying as fast as it can, rising high in the air as if on a line. Then, a hundred yards below, I notice two gulls rising on the same path. The big gulls gain altitude rapidly, and are soon riding the starling's tail. The starling continues its frantic ascent. The gulls weave and dive all around their victim, snatching at the food, but to no avail. The little black bird is headed for the clouds. After several attempts, the gulls give up. I can barely make out the starling that is but a speck. Finally, it realizes that the gulls are no longer following and it sets its wings, descending and disappearing in the distance. The starling's dogged determination to prevail has much to do with its success. That same



persistence is much to the detriment of bluebirds, woodpeckers and other cavity nesting birds that are often outmatched or evicted by the starlings.

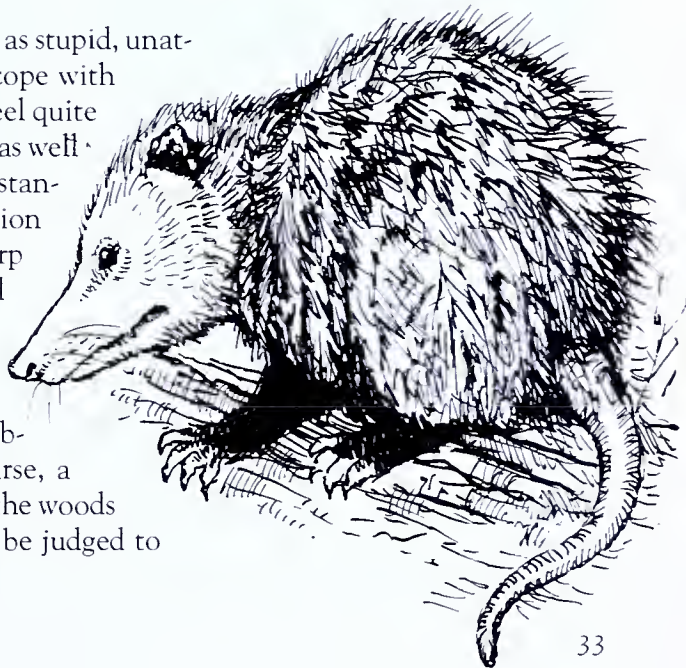
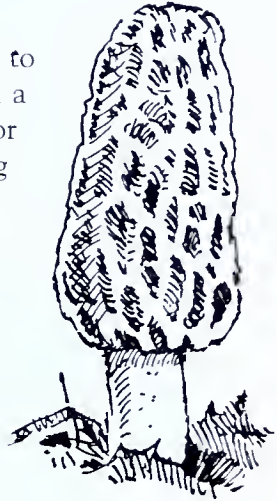
I've noticed that one important nesting site for starlings is in the long hollow arms that hold traffic lights and wires at intersections. Some of these are drilled with starling-size holes underneath where a light would be fixed. Almost every intersection I wait at has starlings using these hollow "branches."

FICKLE APRIL SHOWERS off and on all week. When I have time to head out, rains move in, and when things clear up, I must work on a project. Finally, I grab my knapsack, camera and raingear and head for the woods, without listening to the forecast. The sky is overcast and fog clings on the ridges, but I have the simple plan of walking the gentle ground at the base of a mountain on a state game lands. The mountain runs in a straight line southwest, and I decide to walk several miles in one direction, then drop down lower and head back.

Farther down in the valley I see emerald farm fields and the rich umber of plowed earth. No other month smells like the percolating cauldron of a valley in April. The base stock is clear sweet water that bubbles from high up on the ridge. It is seasoned with earth and loam as it trickles downhill. Filtered by rocks, it rushes forth as a lively freshet here in the bottomland. Next are added the fragrances and textures of spring flowers: violets, trout lilies and shadbush and the tiny, yellow-green flowers of dogwood cupped by big white bracts. Then spring beauties, bloodroot, basswood, wild black cherry and black locust from down near the farm. Combine these with pungent leeks and morels. Early April's flame burns low, the cauldron bubbles slightly. Then, as the heat intensifies, an invigorating aroma wafts through the woods, soothing sinuses beleaguered by winter's dust and dry indoor heat.

Later, in a dank and dark little hollow I sit among curtains of greenbriar stuffed with tattered leaves driven by winter winds. And now it rains. Unfortunately, my raingear sack produces only a pair of pants. A grating sound on bark catches my attention and I turn to see an opossum walking the length of a fallen chokecherry. The 'possum is brilliant white, streaked in black, with dark shiny eyes. It fairly glows in the dusky woods.

Oftentimes, opossums are described as stupid, unattractive animals, poorly equipped to cope with weather, civilization and predators. I feel quite differently about them. The opossum is as well equipped as it needs to be by nature's standards, and so it has been for 90 million years. The opossum has no need for sharp eyes, or blazing speed or craftiness. Dead deer, wild grapes and garbage require no stalking or pursuit skills. As far as looks, this big beauty appears much drier than I, and at this moment, probably a shade more handsome. Of course, a grown man sitting out in the middle of the woods wearing rain pants on his arms might be judged to have not much intelligence at all.

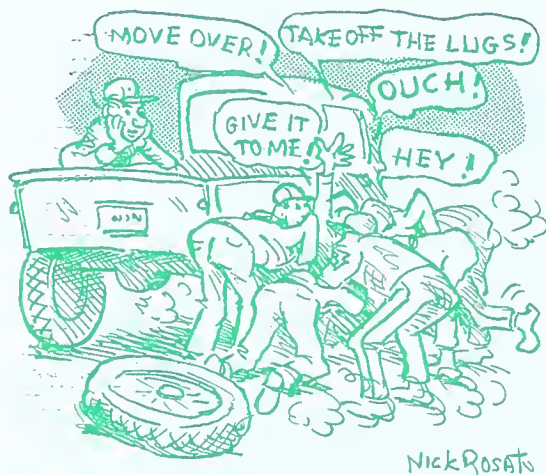


FIELD NOTES

Some Never Learn

SOMERSET — During doe season Deputy Bob Turner and I caught a man, whose hunting privileges had been suspended, with two antlerless deer. After determining that he had shot both deer and tagged them with his wife's licenses, I explained that the fines were \$500 for each deer and several additional years of license revocation. I also told the wife that she would be liable if she continued to aid her husband by allowing him to use her licenses. Both indicated they understood, but in their defense, the husband said, "I wanted her to shoot the deer, but they were on my side of the truck."

— WCO SCOTT TOMLINSON, JENNERSTOWN



Too Many

TRAINING SCHOOL — One of the first things we learned is the value of teamwork, and we applied the lesson when one of our instructor's truck had a flat tire. With eight trainees trying to change the tire, I think we stretched the teamwork concept a bit. It took longer with the group than it would have with just two people. Exactly how many trainees does it take to change a tire?

— TRAINEE RANDY W. PILARCIC, HARRISBURG

Never Too Old

LANCASTER — Hunter-Trapper Ed instructor Stan Gingerich's father, Ralph Gingerich, from Helam, had a great hunting season last year. He killed a 3-point buck, a 140-pound bear and a gobbler with a 9½-inch beard, which he shot on his 73rd birthday. This was Ralph's second triple trophy season; his first was in 1986.

— WCO THOMAS P. GROHOL, ELIZABETHTOWN

Farewell

MERCER — Three of my veteran deputies recently retired. With over 25 years of service, each has greatly contributed to wildlife conservation. Many thanks go out to Richard Polley, Jerry Stainbrook and Jerry Shingledecker. These retirements leave a void that will be hard to fill. Take it easy, guys; you've earned it.

— WCO DONALD G. CHAYBIN, GREENVILLE

"I'll Scratch Your Back Now . . ."

BRADFORD — A local paper ran a story disclosing the location of a black bear that had denned in a culvert pipe. The bear had a lot of visitors, poking flashlights into the culvert, so Deputy Fox and I posted the area against entry. The bear slept away the rest of the winter in peace. I only hope the bruin reciprocates by staying out of trouble this spring and summer.

— WCO WILLIAM A. BOWER, TROY

Pied Piper

With bitter cold weather, two feet of snow and layers of ice this past winter, we decided to plow sections of food plots on game lands here. Game lands maintenance worker Gail Bean was plowing when he noticed turkeys and pheasants feeding in the newly opened section behind his dozer.

— LMO JAMES DENIKER, SANDY LAKE

Sleep it Off

JEFFERSON — WCOs hear some creative excuses from violators, but one of the best I've heard was when a guy who had shot a buck during doe season told the magistrate that he sometimes makes bad decisions due to a sleep disorder. Fortunately, the magistrate didn't have the same sleeping problem and found him guilty.

— WCO ROGER A. HARTLESS, BROOKVILLE

Musical Chairs

SCHUYLKILL COUNTY — While refurbishing waterfowl nesting devices, deputy applicant Dave Fidler and I found that most had been used. Several of the wood duck boxes had screech owls roosting inside, and they didn't seem to mind having their sleeping quarters cleaned. One owl was found to be napping alongside part of a flying squirrel carcass. A few days later, when bird bander Scott Weidensaul and I returned to band this owl, we found that the owl and its cache were missing. Several hundred yards away, we opened another box and found the same piece of flying squirrel carcass, but the owl wasn't home. It's nice to know that our efforts benefit wildlife all year long.

— WCO STEVE HOWER, PINE GROVE

Big Bad Wolf?

LUZERNE — Rumor has it that WCO Chris Grundi and a deputy raced to the scene of an alleged deer poaching incident, only to discover three dead pigs. Hey, Chris, I bet you're wondering who squealed on you.

— WCO JOSEPH G. WENZEL, BEAR CREEK

Flash Out of the Blue

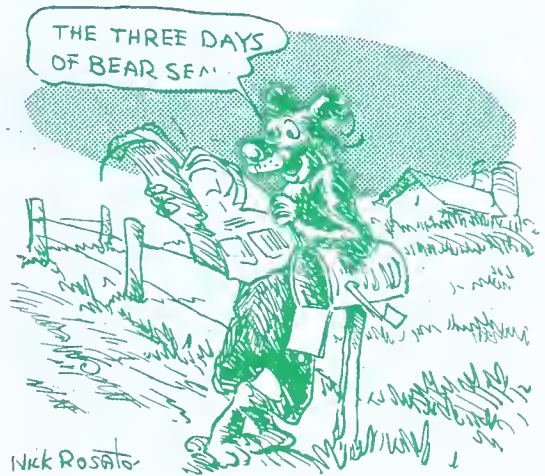
FRANKLIN — While I was sitting in front of my typewriter, trying to come up with a Field Note, a sharp-shinned hawk came from nowhere to snatch a cardinal out of the air a mere two feet from my picture window.

— WCO KEVIN L. MOUNTZ, ST. THOMAS

Blew the Whistle

WAYNE — After having a trapper tell me that someone was stealing his traps, I decided to contact my neighboring officer, WCO Don Burchell, to tell him to keep an eye out for the culprit. Don had found several illegal beaver sets, which were tagged with the name of the trapper who had reported his traps stolen. The moral of this story is: If you don't want to play by the rules, don't call the referee.

— WCO FRANK J. DOOLEY, TYLER HILL



Smarter than Average

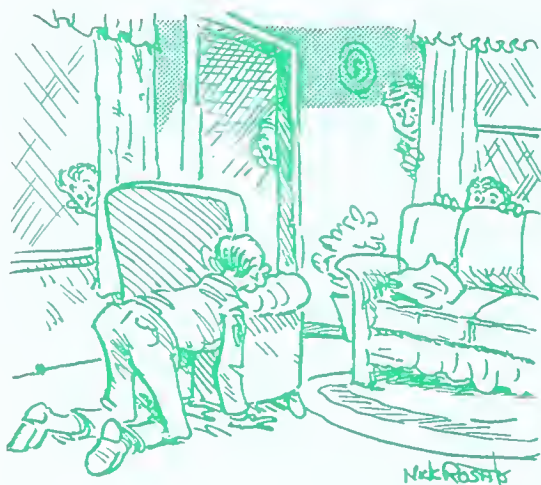
A rural newspaper carrier from Columbia County told me that last fall one of his subscribers found his newspaper ruffled and partly out of the box, with muddy bear paw prints all over it. It's rumored that the bear was merely trying to verify the opening day of bear season.

— LMO KEITH P. SANFORD, MIFFLINVILLE

Eggbeater?

While conducting a program at Maplewood Elementary School, WCO John McKellop and I were showing the children the difference between a hen and gobbler turkey foot. When I asked one youngster why one foot had a spur and the other didn't, he replied, "The gobbler has that sharp thing to crack the eggs open after sitting on them."

— WES RICHARD T. CRAMER, TIONESTA



Mine Field

TRAINING SCHOOL — Because we're required to submit one Field Note each month, my classmates are dangerous to be around. Everyone looks for and takes notes on embarrassing moments, tall tales and paybacks and sequels to prior Field Notes. No one is safe. Now I know how many of our WCOs developed their writing skill.

— TRAINEE ROSE LUCIANE, HARRISBURG

Give 'Em a Bag and Blindfold

While on field assignment at Pymatuning, Trainee Tom Swiech wanted to try duck hunting on his day off, so I took him into the marsh one morning. The ducks weren't flying, but the snipe were, and they were in season. I'm wondering if he's told anyone at the school about being taken on a snipe hunt.

— LMO JERRY A. BISH, CONNEAUT LAKE

Pinned

WYOMING — On the first day of buck season John Gabries and Brian Landsbury found a beaver trapped by its tail under a large tree it had felled. The tree was too heavy to budge, so the hunters gathered rocks to use as a fulcrum and a stout branch. It took over an hour, but they eventually freed the beaver. These unselfish sportsmen gave up valuable hunting time to help a wild animal.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Well Groomed

ERIE — The harsh weather here last winter didn't seem to have an adverse effect on the turkey population, only on the length of many of the gobblers' beards. Breakage from ice and snow build-up is nature's way of trimming beards.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Phew!

TRAINING SCHOOL — WCO Shawn Harshaw and I were monitoring a deer decoy when a vehicle came down the road, stopped, and a man jumped out, loaded his rifle and took aim at the decoy. Before he could shoot, though, Shawn's cell phone rang, and the man unloaded his rifle, jumped in his vehicle and sped away. I let out a sigh of relief when I found out that the call wasn't for me.

— TRAINEE RODNEY L. BURNS, HARRISBURG



Discipline

HUNTINGDON — While he was assigned here during field training Trainee Tom Swiech bunked in my son's room, who was away at college. Soon after Tom had completed his assignment, my son came home for Christmas break. It took only one week to learn that he sure didn't practice the same cleaning habits at his dorm that Trainee Swiech had to at the training school.

— WCO JOHN B. ROLLER, HUNTINGDON

Calendar is Off

MIFFLIN — Last fall's warm weather severely affected the waterfowl migration. In January I spotted species and numbers of ducks that are usually moving through this area in November and early December. Let's hope things will be back to normal next fall.

— WCO JEFF MOCK, LEWISTOWN

Good Neighbor Policy

CUMBERLAND — Game lands maintenance supervisor Gerald Magee found a fishing rod interlaced in a beaver lodge on one of the ponds at SGL 169. Because beavers don't eat fish, I wonder if they release their catch or feed the osprey next door?

— WCO EDWARD B. STEFFAN, NEWVILLE

What it's All About

SOMERSET — The youth antlerless deer days during buck season turned out to be just the opposite of what many people thought. I checked some excited young hunters, but what surprised me most were the excited parents accompanying the youngsters. The parents were able to go along without the pressure normally associated with a first day. One man was trying to express his feelings as he stood next to his son with his first deer. The father finally said, "I can't put it into words, but it sure feels good."

— WCO DANIEL W. JENKINS, BERLIN

Is it Worth It?

TRAINING SCHOOL — Some people caught violating game laws pay penalties much greater than the fines and license revocations required by law. I know people who have lost their jobs, friends, and in one case, nearly a wife. An acquaintance of mine refuses to hunt with his brother because he is a habitual violator. Lawbreakers not deterred by a monetary penalty should consider the potential "hidden" penalties.

— TRAINEE FRANK LEICHTENBERGER,
HARRISBURG

Drastic Measure

MONTGOMERY — It's illegal to build a treestand or use a treestand that damages a tree on public property, and it's only legal to do so on private land with written permission from the property owner. This past hunting season a landowner reported that someone had built a treestand on his property without permission. His solution: He cut down the tree.

— WCO BILL VROMAN, FREDERICK



What's He Sayin'?

TRAINING SCHOOL — WCO Bill Wasserman and I were setting traps to catch nuisance muskrats, and I kept getting my hands caught in the traps. Bill commented about how much easier it was to catch trainees than muskrats.

— TRAINEE MATTHEW P. TEEHAN, HARRISBURG

Unusual

BRADFORD — On January 23 my wife and I were watching the many birds at our feeder, and we were astounded to see a junco appear with a nightcrawler. We watched as it beat the worm against the ground before swallowing it. I'm not sure what surprised us more, that juncos eat worms or that it was able to find one in the dead of winter.

— WCO RICHARD P. LARNERD,
WARREN CENTER

Close Shave

Deputy Gerald Stombaugh was notified by an employee of the Martindale Lumber Company to pick up two fox squirrels. It seems that some trees were cut at a site in Bedford County, dragged to a loading site and transported to a mill in Cambria County. After laying around for a few days, the logs were prepped for cutting into lumber. After the first log went through the debarking machine someone noticed a squirrel's tail sticking out of a hole. Operations were halted, and two young squirrels were removed and sent to a rehabilitator. The squirrels were soon released into the wild.

— LMO STEPHEN A. KLEINER, ALTOONA



Dogs and Cover

BEDFORD — Deputies Steve Heaster and Joe Horton told me they and their beagles had 43 rabbit chases during a 3-day period in late January.

— WCO JIM TROMBETTO, NEW ENTERPRISE

Missed the Point

Law enforcement supervisor Gary Packard checked a hunter last deer season who was sitting in his vehicle with a loaded rifle on his lap. When informed that this was a violation, the man said, "I don't see why, I'm just going to load it again when I get out of the vehicle."

— LMO STEVE GEHRINGER, MANSFIELD

Unsung Heroes

Despite the recent criticism of our deputy program, I'm awfully proud of my deputies. Not too long ago my deputies backed up State Troopers at a domestic shooting incident. Three people were killed and five were injured, and the injured were dragged to a waiting ambulance by a PGC deputy.

— LMO STEVEN SPANGLER, EAST BERLIN

Odd

BEDFORD — The unseasonably hot, dry weather last fall triggered some strange activity in both wild animals and plants. Amidst budding hawthorn trees, a hunting companion and I noticed a pair of ruffed grouse engaged in a courtship ritual in mid-November. Another friend had found two grouse nests containing eggs in late November.

— WCO TIM FLANIGAN, BEDFORD

Sticky Answer

CRAWFORD — I was doing a presentation on deer antlers for the third grade classes at Neason Hill Elementary School when I showed the students antlers in velvet. I asked if anyone knew what the antler covering was when one eager lad yelled, "Velcro!"

— WCO MARK A. ALLEGRO, MEADVILLE

Quick Thinking

VENANGO — It didn't take Mark Kahrer, our newest food and cover employee, long to get adjusted to wildlife management. The careless use of ATVs raise havoc with habitat, causing erosion and killing young plants. So, while cutting otherwise nonproductive trees to block off some trails used by unauthorized ATV riders, Mark inadvertently evicted a flying squirrel family from a cavity in a tree he had cut. He immediately erected a modified bat box, topped it off with some of the critter's own nesting material, and the squirrels immediately accepted their new home.

— WCO LEO C. YAHNER, FRANKLIN

Elk population nears 500

THE 1999 survey indicates that 480 elk are roaming northcentral Pennsylvania, up substantially from the 312 tallied in 1997, when the survey was last performed, and there's every indication that more than 500 will be roaming the Allegheny Mountains by the new millennium.

By the turn of the century, elk were long gone from Pennsylvania, and as recently as 1992, the herd numbered only 183. "The elk population has been climbing steadily since the late 1980s," said PGC biologist Rawley Cogan. "Increased use of deterrent fencing in farming areas and aggressive habitat improvement programs on public lands have caused population gains by reducing elk conflicts. Over the last two years we have recorded above average elk reproduction, along with mild winters and low mortality. The trap-and-transfer work should also spur population growth."

Only two elk surveys have been conducted over the past four years, because the snow cover needed to spot elk from aircraft was insufficient in late January in 1998 and 1996. Elk normally spend December and January in large groups, and then break up into smaller bands in late January and February.

The herd breakdown by sex and age class in the 1999 survey was 71 branch-antlered bulls, 33 spike bulls, 255 cows and 92 calves. Another 29 elk were observed in thick vegetation,

which prevented accurate determination of sex and age.

As has been the case during the herd's current growth spurt, cows have accounted for the largest gains in the surveyed population. From 1995 to '97, cows increased by 32 to 175; over the past two years, by 80. Calves have also increased considerably over the past two years, from 44 to 92. It should be noted, however, that especially when aircraft can't fly at low altitudes, it's difficult for spotters to differentiate between calves and cows.

Known elk mortality in 1998 totaled 27, up from 21 in 1997. A breakdown of losses, with 1997 figures in parentheses, is: highway collisions, 4 (6); accidental, 2 (4); brainworm infestation, 2 (2); shot for crop damage, 3 (2); and illegal, 5 (2). Other causes included animals struck by trains, 3 (0); natural cause (old age), 1 (0), and unknown, 7 (5). The breakdown included 15 males and 12 females, of which four were calves.

The wild elk inhabiting Pennsylvania today are descendants of 24 released in Cameron County in 1915 and 10 released in Elk County between 1924 and 1926. A total of 177 elk — mostly from Yellowstone National Park — were released in seven counties from 1913 to 1926 to serve as a breeding base for what was hoped would develop into a population that could sustain hunting.

Although seasons were held from

1923 to 1931 — and 98 bulls were taken — the elk quickly died out everywhere but Elk and Cameron counties, which was, coincidentally, where the state's last native elk existed before being killed off in the 1860s.

Eastern elk were found throughout

Pennsylvania prior to its colonization. Their numbers declined as civilization advanced, mostly as a result of unregulated hunting and deforestation. Elk were scarce in most areas by the beginning of the 1800s. They have been protected in the state since 1931.

Elk trap-and-transfer work resumes

THE SECOND phase of the 3-year elk trap-and-transfer project began in late January. A portable corral trap was constructed and set Monday morning, January 25, near St. Marys in Elk County. Elk had already been coming to the location for feed left daily by PGC personnel. Within a few hours after the trap was set, elk entered the baited chamber. When its door shut, 14 remained. They were processed and moved to a new holding pen about 10 miles north of last year's pen on the Sproul State Forest. Plans called for them to be released in late March.

The trap-and-transfer program aims to remove elk from areas in their primary range where they conflict with other land uses or pose a threat to the public. Cows, calves and some spike bulls are captured in the corral trap; antlered bulls, especially those that have become accustomed to people, are anesthetized and then moved.

Last year, 33 elk were trapped in Elk County and moved to the Sproul State Forest in Clinton County. This program was started to hasten and direct the dispersal of elk from the primary range into other suitable areas. The program is designed to limit elk conflicts and the potential for habitat deterioration. Expanding the elk range is also an important goal of the state's



Hal Korber

BOB DECKER holds the remote control device he uses to close the trap door after the elk have entered the trap. Bob is one of several volunteers working hard to make this trap-and-transfer project a success.

elk management plan, which was adopted by the PGC in 1996.

Ten of the 11 cows relocated to the Sproul last year produced young. One cow was killed in a train collision; another lost her calf to unknown causes. The reproductive success rate of cows on the new range indicates the trapped elk are being handled properly and that the new range is meeting their needs. None of the translocated elk returned to the traditional range.

The trap-and-transfer project is being funded by and in cooperation with the PGC, DCNR, Pennsylvania State University, Frostburg State University, Purdue University and the Rocky Mountain Elk Foundation.

Correspondence/complaint-tracking system nears completion

A SYSTEM to track Game Commission correspondence and complaints was recently installed on the agency's computer server and will be placed into operation at the Harrisburg headquarters as soon as employee user training is completed. This system will be used to log and assign correspondence, and ensure it's answered in a timely manner. The system replaces a trail of paperwork that was inefficient and often unmanageable.

Correspondence and complaints will be scanned into the system and assigned to appropriate personnel for response. At the Harrisburg office, each of the agency's six bureaus, along with the Executive Office and Personnel and Training divisions, will be connected to the system. Regions will be brought on line in a few months.

The new system also provides reports that will measure the amounts

of correspondence, as well as average response times and primary topics of inquiry.

Citizen complaints about Game Commission employees will not be tracked on the new system immediately, because the agency is still working to establish a "professional responsibility and internal affairs coordinator," a new position. But by the time a coordinator has been hired, the tracking system should be fully operational at all PGC offices.

"While substantial work remains to be done, we believe that major progress has been made in establishing this tracking system," said PGC Deputy Executive Director Mike Schmit. "We're confident it will meet the expectations of staff, the General Assembly and those people who come in contact with agency employees. It's an overdo step in the right direction."

PGC heavy equipment auction

A GAME Commission auction of used farm implements and other equipment is being held on Saturday, April 24, at Haldeman Island, just north of the Clark's Ferry Bridge on the Susquehanna River, off Route 11/15. Graders, cultivators, grain elevators, seed spreaders and manure spreaders are some of the farm implements being sold. Mowers, chainsaws and snow-

mobiles are just some of the other equipment available.

Buyers are to come prepared to remove auction items the day of the sale. Gates open at 7:30 a.m.; the auction starts at 9. For a more complete list of items, terms of sale and other details, contact Ziegler Auction Company at 717-533-4267, or visit the company's web sit at www.zieglerauctionco.com.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

Deputy apprehends Adams County dumper

DEPUTY Wildlife Conservation Officer Clarence Cluck Jr. was interviewing a hunter on the Michaux State Forest when a dump truck with its bed lifted sped by spewing garbage. Realizing there was a problem, which was quickly confirmed by a concerned citizen pursuing the truck, Cluck followed.

The trail of junk, glass and nails ended two miles down the road, when Arthur D. Clegg, 28, Littlestown, eventually pulled over for DWCO Cluck at the intersection of Milton Berger and Mountain roads.

Clegg's journey had begun at a water ditch along Milton Berger Road on the Michaux, where a camper observed him dumping debris that included burned materials, building scraps, asbestos shingles, partly filled paint cans and old mufflers. When the camper approached, Clegg fled with the bed of his truck raised. The camper followed, and eventually alerted DWCO Cluck.

Charges against Clegg were filed

December 9 with District Justice Harold R. Deardorff, Gettysburg. They include transporting litter and scattering detrimental materials on lands open to public hunting. If found guilty, Clegg faces fines that could exceed \$20,000. Further investigation into this incident continues by the state Department of Environmental Protection and the Adams County Hazardous Materials Unit.

"Littering and garbage dumping are common problems that continue to tarnish the beauty of our state lands, not to mention private properties," said PGC Land Management Bureau Director Greg Grabowicz. "In some areas, especially those with abandoned strip mines and extensive dirt road networks, the problem is epidemic."

In 1997, the latest year for which there are complete statistics, Game Commission wildlife conservation officers cited more than 500 individuals for dumping garbage or littering. Most of these incidents occurred on public lands.

PSAA Tournament on Tap

ONE OF archery's most popular events will take place April 10 and 11 at the Farm Show complex in Harrisburg. Nearly 800 shooters will be competing for the coveted title as Indoor Champion of the Pennsylvania State Archery Association.

Archers from small children to senior citizens with all shooting skills will compete over the two-day period. Each participant must shoot 60 arrows per day, at targets 20 yards away. Targets are scored after 3-shot increments. A perfect score for the tournament is 1200, which has rarely been achieved.

Spectators are welcome. All archers compete in divisions that are determined by equipment used as well as in classes based on the archer's shooting skills. Thus, there is a level playing field on the way to the championship title. In addition to the indoor championship event, the PSAA has four other championships, which are shot outdoors. For more information concerning these PSAA tournaments, contact Barbara Goss, Executive Secretary, 334 Strodes Run Road, Lewistown, PA 17044, or visit www.psaa.com.

Planting for Wildlife Sales

FOR THIS YEAR'S "Planting for Wildlife" sales, the Game Commission is offering seed mix packets and a limited number of bluebird nestbox kits. No seedlings are available for sale to the public this year.

The seed mix packet, which sells for \$5, is a 10-pound bag of buckwheat, sorghum, millet and dwarf sunflower. This specially formulated blend is ideal for those who want to plant herba-

ceous food and cover for wildlife on their properties.

The bluebird nestbox kits, which have quickly sold out at most locations in past years, sell this year for \$6 apiece. Each kit includes precut lumber ready for assembly.

Watch local newspapers or contact your Game Commission region office for sale locations, dates and times in your area.

Middle Creek programs

AN EXCITING lineup of programs is again planned for the Middle Creek Wildlife Management Area.

On April 7 & 8, Dr. Gary Alt will present his ever popular "Pennsylvania Black Bear" program. As anybody who has seen Alt's program knows, this look at one of our most intriguing animals through the experiences of one of the foremost bear biologists promises to be most entertaining and informative.

On April 21 & 22, Richard S. Warren, of Nature Enthusiast, will present

"And Suddenly it's Spring," a slide program featuring Pennsylvania's wide array of beautiful wild flowers.

On May 5 & 6, WCO Tim Flanigan will present "Ruffed Grouse — A Bird for All Seasons." An outstanding photographer,

Flanigan will follow the bird's natural history through the seasons and offer some insights on pursuing what many believe to be the king of game birds.

Programs are free and begin at 7:30 p.m. The Middle Creek visitors center is south of Kleinfeltersville.



REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 717-398-4744

Southcentral — 814-643-1831

Northeast — 717-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

Dove season modifications being considered

THE GAME Commission is thinking of dividing Pennsylvania's split mourning dove season into three parts for the 1999-2000 hunting seasons. But before it petitions the U.S. Fish & Wildlife Service to approve the season, the agency is looking for public input.

The three segments of the proposed season are September 1 to October 2; October 16 to November 9; and December 27 to January 8.

The agency is also interested in extending shooting hours for the first segment to run from a half-hour before sunrise to sunset, instead of noon to sunset as in past years. The move would provide hunters more opportunity without concurrent small game season conflicts.

"Patterns in dove harvest and hunter participation indicate the harvest and hunter success decline as the season progresses," said PGC biologist John Dunn. "The first couple of weeks in September provide the greatest opportunity for hunters. That's when the

largest portion of our dove harvest occurs."

The doves available to hunters are a combination of resident and migrating doves, as well as those wintering here. Doves have been hunted in the commonwealth since 1945.

The changes being proposed aren't expected to have significant impacts upon dove harvests or populations. Habitat availability and quality, and environmental conditions during nesting season seem to influence dove populations more than hunting.

"Pennsylvania currently has about 60,000 dove hunters who harvest about 500,000 doves a year," Dunn said. "What we're recommending shouldn't cause the number of dove hunters or harvests to change much."

To comment on the dove season changes being recommended, write: Dove Season Changes, PGC Bureau of Wildlife Management, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

Pymatuning has plenty to offer

THE PYMATUNING visitors center will open for the season on Monday, April 5. Each year more than 200 school, scout, church and other groups visit the center. The museum houses hundreds of Pennsylvania bird and mammal mounts.

Wildlife art prints are displayed throughout the building. A replica of an 1800s trapper's shack constructed in the building serves to portray hunting's heritage.

Outdoors, special plantings, houses and feeders for wildlife are found. A

hike on the educational, self-interpreted, one-half mile nature trail (handicapped accessible) is always a favorite. The bald eagles remain the feature attraction. The birds are often visible from the visitors center.

The Pymatuning visitors center is located just south of Linesville on the Hartstown Road. It's open Monday through Friday, 8 a.m. to 4 p.m., and Saturday and Sunday 9 a.m. to 5 p.m.

Groups should schedule ahead for special program presentations by calling the center at 814-683-5545.

Dunkle Concept

see page 2 for explanation

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Oct.						1	2 A
	3	4 A	5 A	6 A	7 A	8 A	9 A
	10	11 A	12 A	13 A	14 A	15 A	16 A
	17	18 A	19 A	20 A	21 A	22 A	23 ATS
	24	25 ATS	26 ATS	27 ATS	28 ATS	29 ATS	30 ATS
Nov.	31	1 ATS	2 ATS	3 ATS	4 ATS	5 ATS	6 ATS
	7	8 ATS	9 ATS	10 ATS	11 ATS	12 ATS	13 ATS
	14	15 S	16 S	17 S	18 S	19 S	20 S
	21	22 S Bear	23 S Bear	24 S Bear	25 S Thanksgiving	26 S	27 Buck
Dec.	28	29 Buck	30 Buck	1 Buck	2 Buck	3 Buck	4 Buck
	5	6 Buck	7 Buck	8 Buck	9 Buck	10 Buck	11 Doe
	12	13 Doe	14 Doe	15 Doe	16 Doe	17 Doe	18 Doe
	19	20 S	21 S	22 S	23 S	24 S	25
Jan.	26	27 AMS	28 AMS	29 AMS	30 AMS	31 AMS	1 AMS
	2	3 AMS	4 AMS	5 AMS	6 AMS	7 AMS	8 AMS
	9	10 AMS	11 AMS	12 AMS	13 AMS	14 AMS	15 AMS
	16	17 S	18 S	19 S	20 S	21 S	22 S
	23	24 S	25 S	26 S	27 S	28 S	29 S

Squirrels 65 Days
Rabbits 65 Days
Grouse 65 Days
Cock Pheasants 35 Days
Combined
Pheasant Area 65 Days

A = Archery
AM = Archery/Muzzleloader
T = Turkey by Management Area
S = All Small Game

Another View

By Linda Steiner

There's a big difference between hunters and nonconsumptive users in the outdoors. The hunter actually participates in the life-web of the forest and field, while the nonconsumptive user is merely an observer.

Tourist or Local?

WE'VE ALL seen the funny caricatures. One is the tourist with "Hawaiian" shirt, funny hat, sunglasses, baggy shorts and, yes, sandals with socks. To complete the picture, hang a camera from his neck and give him a guidebook.

The other cliché is the local. The local is usually depicted as a "hayseed" or a "hick," with farmer overalls, outsized clodhoppers, and a brimmed hat pushed back. In the caricature he's chewing on a piece of straw and lounging back in a chair at the small town general store.

Like all folklore, there's some grain of truth in both of these pictures — most of us have been on vacation with at least some of the typical tourist's wardrobe, and we own worn work boots and have whiled away the time with folks we know at a neighborhood shop.

The true difference between the tourist and the local is knowledge. Dress each how you will, poke fun at one or the other for their very-human foibles, but the distinction comes down to which has the most information about the place they're both in.

One, the tourist of course, is just visiting. He probably has no background in the place or, at best, very superficial knowledge. He might have maps of streets and high-



Bob Steiner

ways, guides to museums and galleries, restaurants, lodging and scenic overlooks. He might even have traveled there knowing something of the history, culture and social make-up. On the surface, the tourist may appear to know a great deal about the place he's traveled to, but it's just the iceberg-tip of what the location is really about.

So let's consider the local. The local has

the advantage of time in the place and a more intimate knowledge of all that goes on there. If he wasn't born there, at least he's lived there long enough that it feels like home. He knows all the neighbors and their kith and kin, and maybe more about their lives than they want him to. He knows the shouted news and the whispered gossip. He knows a history of the place that doesn't come in a guidebook, the families and town and country happenings from way back. And he sees the place around him in that light.

Just like in our hypothetical small town, vacation destination, Penn's Woods and fields have their tourists and locals, too.

Although they certainly show a great interest and appreciation for the natural world, hikers, canoeists, campers, birders, wildlife watchers and other nonhunters are tourists to the outdoors. They visit as observers only, to sample a little of another life, then go home, where they more fully understand the surroundings. Not to disparage them, these tourists are often well-prepared with "book learning" before they visit. They know the birds' names, their calls and even their Latin monikers. They have maps of hiking routes and guide pamphlets to take them to scenic views and waterfalls.

But the tourist to the outdoors is forever someone apart, someone who is not involved in the life of the place, just there to watch it happen. It's fun to be a tourist, but it's not like being of and belonging to the place.

Hunters, I believe, are always locals. But they don't actually live in the woods, and they may be hunting a place across the state from where their house or apartment is located, you say. Yet in their being, through the very action of hunting, an integral part

of the particular woods patch, mountaintop forest or lowland swamp they're in, they have the right to claim they are locals.

Locals don't just watch, they participate. They are members of the community, interacting with the rest of what and who lives there. The tourist-hiker or bird-watcher is in the woods, but he is not participating in the life-web of the woods. He is on a different plane, apart. But the hunter-local is integrated with the constant goings on of forest and field among them and not divided by use or attitude.

The opportunity to be part of the outdoors, and not just a transient viewer, was one of the main attributes that drew me to hunting. Practically from the first day out with a hunting

license on my back, I realized how differently I saw the wild world around me. I was deeper into the place as a hunter than when I was just there to look at the pretty autumn leaves, the spring flowers and songbirds, or simply on a stroll to take pictures at an overlook.

As a hunter I immediately became a working cog in the forest's machinery of life. I affected the wild community, even as it affected me. I wasn't just watching deer by happenstance anymore. Now I was actively involved in locating them. More than that, like trying to contact an old friend by figuring out his daily routine and his usual haunts, I was attempting to get close to a particular deer, or at least the deer that were feeding under a certain apple tree. I even had to learn if the deer's social status was "single but looking" (bucks after does) or part of a family (does and fawns together). I not only had to know what "restaurants" were nearby, in the way of oak woods or farmers' fields, but whether the menu was any good that day — plenty of

As a hunter I immediately became a working cog in the forest's machinery of life. I affected the wild community, even as it affected me.

acorns still on the ground and the corn still standing. It takes a local to get that close to the goings on.

As a hunter I'm a local in the woodland community, because I've been there for the births and the deaths. The newborn fawn I see means more to me than "ooh, how pretty" tourist sentiments. The young deer means its mother was in good enough physical shape to take the fawn to term, survived the winter hardships well. By the fawn I know how its "mom" is doing, just like a local might ask someone how their parents are. I can also project the fawn into fall, anticipate its growing up and its role in antlerless deer season. And I can see what it may become the next fall, bigger, with a fine set of antlers. By then it would have contributed its own "children" to the whitetail family in that area. I might have become acquainted with them all, as any local would.

As a hunter I'm very much a part of the woods community because of the wild animals I shoot and add to my bag and my dinner table. Few would argue that this sort of involvement, this closeness with the life of animals, directly determining their persistence in or removal, is not a hallmark of being ultimately of the place, being a local. I've not just seen, I've done, with skill, wisdom and high regard, I hope.

But maybe I'm flattering myself and other hunters as well, grouping us with the locals. After all, we know we're not the ones who truly deserve that name.



Bob D'Angelo

THE OPPORTUNITY to be an active part of the outdoors, and not just a transient viewer, is one of the main attributes that draws people to hunting. Hunters have deeper ties to a place than casual users because they work so hard learning the area.

It's the wildlife that survives in that place every day, every night, in all weather, in scarcity and plenty, who are truly the resident locals, the neighbor folks. When it's dark and cold, with sleet blowing and branches building an icy covering, it's the chickadees, the rabbits and the deer that are out on the land, because they live there all the time. Even we hunters are tourists compared to that; we're dry and warm indoors, back to the places we really live. Even the building we're in is just a visitor to the land, a transient structure. And come morning, when we're snug at home, with food just a refrigerator-door-pull and a pan-on-the-stove away, outdoors in that place where we like to think we're locals, the wildlife that lives there full-time is awakening to another uncertain dawn.

So who is the local and who is the visit-and-go tourist when it comes to the outdoors? In most small towns the feeling is that you're not a local unless you were born there, and your family's from there. If that's the case, wildlife has all claim to the title. □

Behind the Badge

By Rick Larnerd

Bradford County WCO



"You don't always get what you go after, but you never get what you don't go after." From the movie, "Sunder."

Blown Opportunity

NIGHT PATROL for a WCO conjures up visions of crisp fall nights with millions of stars littering the sky. Spotlights rake far horizons, and sound carries over great distances. At least it does for me. In reality, however, not all night patrols occur in the fall.

My district in northern Bradford County borders New York, and part of my patrol area encompasses SGL 219, a 5,600-acre tract that abuts the New York border. Because of its seclusion, it's a prime spot for people to go to party. I suppose I wouldn't mind the partying so much if people would take their trash with them when they leave, and if they wouldn't vandalize the property. Late spring and early summer, especially prom season and high school graduation time, brings a rash of

these parties, and 1998 was no exception.

After a particularly bad week toward the end of June, I asked two of my deputies to maintain a constant vigil in hopes of catching these litterbugs. With the 4th of July just around the corner, it was likely that the partiers would strike again. For a solid week, in weather ranging from beautiful, warm summer nights to torrential downpours, the father and son team staked out the game lands. Joe Mihalek has been a deputy for 20 years, and his son, Joey, was commissioned only recently.

Friday night came and there had been no sign of the partiers. The two officers were disappointed, but I consoled them by pointing out that at least nothing had gone on while they were in there. I decided to accompany them that Friday. The weather wasn't cooperative, though. One minute it rained, the next the sun was evaporating the fallen moisture. The humidity was high and thunderstorms threatened well into the night. With the weather so unstable I thought about calling off the patrol, but in the end, we went.

Because of all the rain, the game lands roads and parking areas were clear of all tracks. By 11 p.m. Joe, Joey and I had made the



rounds and were concealed along a back road that led to New York. Standing outside my truck, Joe and I told stories of past hunting seasons while Joey soaked them up like a sponge. The sky had cleared and the fireflies shown as brightly as the stars. Cars passing on the interstate many miles away could be heard quite distinctly. I told the two that this is the part of my job that I enjoy the most. Joe agreed.

At 11:30 p.m. the silence was shattered by a rifle blast from across the valley. We all stood there in disbelief. It didn't take long to spring into action, and within a few minutes we were headed to the area. I was certain I knew where the shot had come from, and it was in Susquehanna County. Because the Northeast Region office signed off the air at 10:30, there was no way to call for backup.

The dirt road into the area where the shot had come from petered out near the top of the mountain. Driving past a "Road Closed" sign, we continued into the woods. The reason for the warning soon became apparent. The road no longer existed. What once was a traveled thoroughfare was now completely washed out. Rocks ranging in size from grapefruits to watermelons were obstacles that constantly needed to be avoided.

I was beginning to question the wisdom of this drive when we came to the field where I felt the shot had come from. The lane led us into several huge hay fields, and we soon spied a fresh set of tracks in the rain-soaked grass. "Keep your eyes open for the glint of metal or reflectors," I instructed. At each puddle we encountered, I slowed to look and saw that each was mud-died, a sure sign of recent passage. My pulse quickened as I thought we just might catch the poachers. The tractor path we were on led us through the field and back out to the pass we had traversed earlier. We did not spot the vehicle, but fresh tracks were still evident in the soft mud on the road. Hot on the trail, we continued.

Not long after leaving the field, we

reached a place in the road where we no longer had to dodge boulders. Soon, we started seeing signs of habitation. Houses, whose occupants were sound asleep at this late hour, became more numerous. The fresh tracks we'd been following were still evident. As we passed under a pole light Joey blurted out, "Hey, some people are sitting around a picnic table up there." Midnight by this time, I thought it a bit odd that people would be sitting outside this late at night.

I pulled into the driveway and was promptly met by a large growling dog showing plenty of teeth. "I'm not gonna get bit, am I?" I asked as we came to a stop. The owner called off his dog and we got out.

After identifying ourselves, I asked how long they'd been sitting outside, and if they had heard any shooting within the past half-hour. The three people had been there for about an hour, but didn't hear any shooting. I thought that was odd, but they consented to a search of the vehicles and shed. The hoods of both trucks were cold, just like our trail, and the shed was clear. We thanked the trio and left. Thinking we may have somehow missed the poachers in the myriad of fields, we went back to look again.

At a fork in the path, we stopped. We had already been in the nearby fields. We discussed the possibility of taking the right fork, which would take us back down off the mountain in a more direct route. The going looked rough, but we'd get down quicker.

That the going was rough was an understatement. This avenue was even worse than the trip up. Larger boulders forced us to stop to study the best way through. Backing up was out of the question. The hill was too steep, the ground too slippery. As we skirted a deep rut, the gut-wrenching sound of escaping air from a slashed tire hissed at us like a giant serpent. As the final gasps of air wheezed from the spent tire, we surveyed the damage and wondered aloud what to do next. Do we try to fix the

flat here or inch down the hill hoping for a level spot to jack up the truck? The terrain was too steep where we were, so we decided to move forward. After traveling 50 yards, I stopped. Even though the tire was ruined, I didn't want to damage the rim. While I took off my gun belt in preparation for getting filthy, Joey blocked the back tires and his dad began jacking up the truck.

As Joe struggled with the lug nuts, I was keeping a keen eye on the jack. It leaned precariously, and I was afraid it would slip at any second. The humidity was making us sweat profusely, and the ground was a muddy, sloppy mess. I suppose it could have been funny, but no one saw the humor. At last, the final lug nut came free and Joe wrestled the flat off the hub. The jack shifted enough to cause me to draw an alarmed

breath. I fished the spare out of the back and took it up front. With a groan, Joe announced that the truck was not jacked up high enough to accept the good tire. After turning the jack handle twice, it stopped rotating; it had reached its maximum height. What else could go wrong? As we thought about what to do, something in the pass below us caught my eye. A bright light flashed through the trees about 200 yards away. Simultaneously, we heard the growl of an engine and realized that someone was making their way along the road, right to us. The poachers were coming back.

Many times after shooting, poachers will immediately survey the surrounding area. When they are sure no WCOs are around, they'll return to pick up their kill. It appeared we were right in the path of the recovery attempt. As if a grenade had been thrown in our midst, we frantically began to get the new tire on. The flat was placed

under the strut and the jack was lowered. More rocks were placed under the jack and then the truck was jacked up again. We were in a race against time.

"Keep an eye on that truck, Joey!" I grunted. As it came closer, we could tell that it was having the same difficulty navigating the muddy road as we had earlier. Just as we thought their headlights would illuminate us, the truck turned into the same field we had been searching 45 minutes earlier. It was a relief not to be spotted, but we still needed

to get the spare tire on before we could go after them. My enthusiasm soared. Wouldn't they be surprised when they were caught red-handed?

With the last lug nut tightened, I cranked down the jack as fast as I could. In my mind I could see the surprised

looks as we cornered the unlucky poachers. But as the brand new spare sank lower and lower, I stared in horror. It was practically flat. I couldn't believe it.

This was serious. If this tire went all the way flat, we'd be stranded in the middle of nowhere. It was after 1 a.m. and no one was manning the radios at the region office. There was no hope of calling anyone for help. Now we had a decision to make. Did we risk all by chasing the poachers who were only a few hundred yards away, or should we inch our way down off the mountain? It was a difficult decision, but in the end, common sense prevailed.

Our journey off the mountain was long and made in silence. Each of us was absorbing the recent turn of events. The poachers were only 200 yards from us, but they may as well have been 200 miles. One thing was for sure: You don't always get what you go after, but you never get what you don't go after. □



Last year was one of the best ever on Marcia's mountain for . . .

Flowering Trees of Spring

LAST SPRING was wonderful for those of us who admire the blossoms of deciduous forest trees. The heat wave at the end of March brought out many flowering trees two weeks earlier than usual. Then, continual cold throughout April and early May kept them in their blossoming stage for weeks instead of days, which gave me plenty of time to admire what is normally only a brief phenomenon.

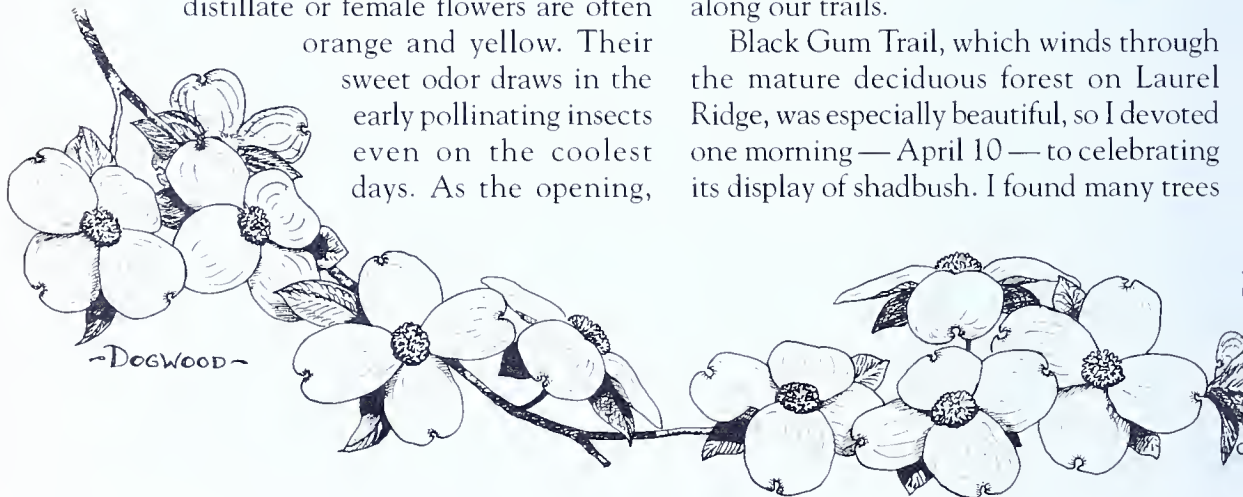
First to bloom were the red maple trees (*Acer rubrum*.) On March 29 they were covered with red or orange flowers, or sometimes both, growing in dense clusters along the branches. The showier flowers are the deep red male or staminate flowers that feature long scarlet stamens, while the

distillate or female flowers are often orange and yellow. Their sweet odor draws in the early pollinating insects even on the coolest days. As the opening,

deep crimson leaves appeared, the blossoms also deepened in color. Two weeks later they were replaced by dangling wine red, green-stemmed, V-shaped, twin fruits that turned the trees into autumnal-like torches. Never had I seen such an abundance of maple keys, but I assumed that the unseasonable warm weather during blossoming time had attracted more pollinating insects than usual.

Three days after the first red maples blossomed, they served as a backdrop for the best and longest flowering display of shadbush that I can remember. Every tree was enveloped in a cloud of drooping, long-petaled, white blossoms, and we discovered that we had dozens of this showy, small tree along our trails.

Black Gum Trail, which winds through the mature deciduous forest on Laurel Ridge, was especially beautiful, so I devoted one morning — April 10 — to celebrating its display of shadbush. I found many trees



of all shapes and sizes, with blossoms at all stages of development, from just opened to past their prime and already leafing out. Those leaves were a bronzed, purplish-brown color which, according to William Carey Grimm's *The Trees of Pennsylvania*, makes the shadbush on our mountain smooth shadbush (*Amelanchier laevis*). This species grows throughout the state, particularly in the mountains. The most common shadbush in our state, (*Amelanchier canadensis*), has pale greenish young leaves covered with long, pale, silky hairs.

Shadbush, so named because it blooms the same time shad return to eastern coastal rivers from the sea, is also called "serviceberry," "sarviss," or "sarvissberry." Some experts say that is because it bloomed when the first circuit preachers were able to reach the backwoods settlements in early spring to hold church services. But naturalist/writer Donald Culross Peattie disagrees. In his *A Natural History of Trees of Eastern and Central North America*, he claims that "sarviss" is Elizabethan English for the Latin word "sorbus" given to a fruit that closely resembles that of "sarvissberry."

The fruit of shadbush gives it still other names — "Juneberry" and "shadberry" — for the dark purple fruits that appear in June. They are so relished by cardinals, robins, cedar waxwings, ruffed grouse and bluebirds, as well as bears, deer, raccoons, foxes, opossums and other fruit-eating animals, that I have yet to find one berry on our mountain. But during a late June trip to West Virginia, I tasted my first serviceberry. No doubt it was (*A. canadensis*), which is not as tasty as (*A. laevis*).

Native Americans picked and dried the berries of all four species of shadbush that grow in Pennsylvania. They were also sold in Philadelphia's markets in the eighteenth and early nineteenth centuries.

Pennsylvania wild food guru, the late Euell Gibbons, specialized in making shadbush pies, muffins and sauce, and canning, freezing and drying the berries for later use.

But it is for their dainty, star like flow-

ers that I celebrate these trees, blooming as they do while most of the forest still wears its gray winter coat.

On the same day the first shadbush bloomed — April 2 — the wild black cherry trees began to leaf out. Unlike the red maples and shadbush, the cherry trees (*Prunus serotina*) send out their shiny green leaves before their sprays of white flowers, so the flowers aren't as conspicuous. But in late April the forest is usually permeated with the cloying odor of them, a signal to me that the cherry trees are in flower. Furthermore, they produce an abundance of blossoms, many of which are jettisoned during storms, which gives me a close-up look at them.

Later, in August or early September, the keening cries of cedar waxwings are a signal that the cherries are ripe. Then the forest floor is covered with purple-black fruits, providing a feast for wild animals on Sapsucker Ridge where our mature black cherry forest grows. I always find piles of bear scat stuffed with cherry pits beneath the trees, but have yet to see the bears eating cherries. That may be just as well because Peattie claims that years ago, when bears were plentiful in the Appalachians, (Peattie was writing back in the 1940s when bears had almost disappeared from most of the area) "The ripening of the cherry crop was a signal for an ursine congregation. The cubs of the year learned to climb the trees by following their mothers up them to reap the wild cherry harvest. 'Cherry beers' were considered especially mettlesome and best left strictly alone."

Humans, too, once appreciated the fruit. Also known as "rum" or "whisky cherry" trees, Appalachian pioneers made a drink called cherry bounce from the juice. The most famous Appalachian pioneer of all — Daniel Boone — found a more morbid use for the trees. The wood makes splendid caskets and, as an old man, he built several of them to sleep in. He gave away all but his last one to poor people who needed a final resting place.

The flowering dogwood trees (*Cornus florida*) were also splendid last spring. Their first flowers appeared along Greenbrier Trail on April 14, while the shadbush was still in bloom, and lasted well into May. The white petals that we admire are really modified leaves surrounding the true greenish bunch of small, tubular flowers in the middle. Those leaves, called "bracts," are signals to pollinating insects that the green flowers contain nectar.

The dogwoods put on their best show in our 7-year-old clearcut. A parade of white trees spilled down over what we formerly called Clearcut Knoll and hastily renamed Dogwood Knoll. Luckily, the loggers found no value in them, so most of the dogwoods, along with the crooked, maimed, or otherwise worthless trees and shrubs, such as witch hazel, on what was then the logger's property, were not cut.

Native Americans once made a red dye from dogwood roots, which they used to color bald eagle feathers and porcupine quills, and during the Civil War, tea brewed from the roots was given to Confederate soldiers as a substitute for quinine to fight malaria.

The black birch (*Betula lenta*) trees also blossomed by mid-April. Three- or 4-inch long catkins, covered with purplish-yellow male blossoms, dangled from the branches, while a half to 1-inch long, erect, stalkless, female catkins, covered with pale green blossoms, grew upright on the same tree branches with the male blossoms.

Black birch trees are also called "cherry birches" because their bark looks like the mahogany red bark of cherry trees, and "sweet birches" because of their sweet sap from which birch beer is brewed. Wintergreen oil was once extracted from their

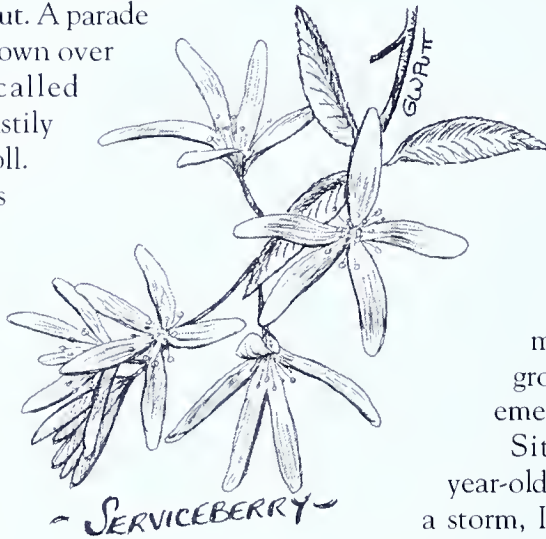
bark by country dwellers who wastefully chopped down 100 cherry saplings into chips to make one quart of the oil. Today wintergreen oil is manufactured synthetically from wood alcohol and salicylic acid. A foolproof way to distinguish black birch branches from black cherry branches is to scrape the bark from a small branch and sniff. The wintergreen odor is always detectable on the black birch.

By April 17, oak trees of all species — red, white, black and chestnut — were in tender leaf, dangling their long, stringy, fringe-like, male catkins from the same new shoots as the few flower clusters of stalked, yellow, female flowers. Each grows from the axils of emerging leaves.

Sitting under a 200-year-old white oak tree after a storm, I found scores of the shoots on the ground, covered with small, downy, greenish-gold white oak leaves and their attendant greenish-gold male flowers.

White oaks (*Quercus alba*) are my favorite oak species, a species which Peattie calls the "king of kings . . . the fortunate possessor of an old white oak owns a sort of second home, an outdoor mansion of shade and greenery and leafy music." I often sit below my "outdoor mansion" and watch the antics of chipmunks, squirrels and even raccoons and deer on occasion. Its huge trunk has several crevices that perfectly fit my back, so it is indeed a sort of second home.

So many trees blossomed abundantly last spring that even those that I had never noticed before, such as a black haw growing on top of the rocky bank beside the Far Field Road, put on a show. Heads of creamy flowers covered this small member



of the viburnum genus (*Viburnum prunifolium*). Also called “stagbush,” “nannyberry,” “sheepberry,” and “sweet haw,” its sugary fruits are favorites of many birds and mammals. After identifying it and adding it to our list of trees on our property, I wondered if I had merely overlooked it in previous springs or whether it was blossoming for the first time.

Another understory tree, one that blankets the forest floor in the black cherry forest, is the striped maple (*Acer pensylvanicum*). Unlike red maples, striped maples unfurl dazzling bright, shiny green leaves before producing 4- to 6-inch long strings of drooping, brilliant yellow, showy, bell like flowers. Male and female flowers usually grow in different clusters on the same tree and the male flowers are slightly showier than those of the female.

I've always thought of striped maples as the easiest of all trees to identify no matter what the season. The “striped” refers to their green bark, which breaks as their stems expand, revealing a white underlayer that gives the bark a striped appearance. One of their alternate names, “goosefoot,” refers to the shape of their leaves, while “moosewood” signals that their bark is favored by moose as well as rabbits, deer and beavers.

It took the warm days of late May to bring out the flowers of tulip and black locust trees. Like striped maples, tulip tree flowers emerge after the leaves. Cup-shaped, showy and erect, the yellow, orange and greenish flowers look almost tropical in their lushness. Those blossoms contain both male and female parts that make them, in botanical parlance, perfect flowers. It's easiest to see the flowers on trees growing out in the open, as one does at the edge of the woods near our house. They “hold the sunshine in their cups,” Peattie writes, “setting the whole giant tree alight.”

A member of the magnolia family, tulip trees (*Liriodendron tulipifera*) are the tallest hardwood trees in North America. Pioneers constructed canoes from their trunks,

hence their alternate name “canoe wood.” Their nearly white sapwood earned them the sobriquet “white-wood.” Still another name is “popple.” They also earned the distinction, during the gypsy moth onslaught here 18 years ago, as the only tree species whose leaves were not eaten by the ravaging caterpillars. Tulip trees have always been favorites of mine because, like striped maples, they are easy to identify by their distinctive, saddle-shaped leaves, tulip-shaped flowers, cone-shaped fruit, and tall, limbless, straight trunks.

But outstripping even the tulip tree blossoms in beauty last spring were the black locust trees. They put on the best display we have seen in the 27 years we've lived here. Black locusts (*Robinia pseudoacacia*) are also called “honey locusts” because of their sweet smell, which used to draw in droves of honeybees before most of the wild ones were killed off by mites. In fact, locust honey is still a favorite with honey fanciers, and beekeepers always rejoice when the locust flowers are abundant. Their drooping clusters of white, fragrant, pea-like blossoms are also perfect, like those of the tulip trees.

They line the edge of First Field, and so for several days we enjoyed their beauty. As one early naturalist wrote, “it is as if a white cloud rested on the treetop, heavy with perfume and alive with bees. One rarely sees, even in spring, a sight more beautiful. It is the supreme moment in the life of this tree.”

My own supreme moment with the trees last spring occurred at Far Field, which wore a fringe of flowering black locust trees. An indigo bunting sang on a large tree covered with blossoms, and if that blue and white vision were not enough, a male cerulean warbler flew in, singing and foraging for insects among the locust flowers. It flitted from branch to branch for the hour I sat nearby watching, presenting me with the perfect ending to a spring that will forever remain in my memory as a banner year for deciduous tree flowers. □

What does building a house and shooting a bow have in common? Simple: For both activities to turn out well, a strong foundation is a must.

Basics for Accurate Shooting

THE BASICS of shooting a bow and arrow are simple and have remained unchanged for hundreds, perhaps thousands, of years. Over the past decade, however, due to our obsession with new, oftentimes unnecessary, equipment and accessories, we have made archery complicated.

Who among us has not experienced a

shooting slump? What was the first thing we turned to when our shooting went south? We blamed our equipment, right? We attempted to change, or buy, something that would help us improve. With few exceptions, the answer was not in our equipment but in our shooting form. Something had changed. We were doing something different, something wrong. An archer with good shooting form can shoot reasonable groups using equipment that is not properly tuned. But an archer with poor form will have difficulty shooting a good group even when using the finest equipment. If this were not true, anyone could buy the best-matched equipment and shoot it well, and we all know it doesn't work that way.

Whether you're a beginner or an experienced archer, understanding and practicing the basics of proper shooting form are important and must be constantly reviewed. The key to better shooting is to know, understand and practice these basics every time you shoot.

JOHN KASUN instructs **Kathy Backel** of **Dillsburg** in proper shooting form at a **Becoming an Outdoors-Woman** program.

Jim Koricich



Shooting Stance

The proper placement of your feet becomes the foundation for your shooting form. Place your feet approximately a shoulder width apart. Spreading the feet unnaturally far apart is uncomfortable, while placing them too close together can lead to sway in the upper body. Most archers place their feet in a direct line with the target. Although this is a totally accepted practice, it places the path of the bowstring extremely close to the upper body. Any contact between the bowstring and the upper body or upper arm at the shot can cause the arrow to go off the mark. Standing with your feet in line with the target, move your right foot (for a right handed archer, opposite for a lefty) slightly forward. This will place your body at a slight angle to the target, but will increase the distance between the path of the bowstring and the upper arm and body. Maintain this position through the draw and do not twist the body at the waist. This is especially important when shooting with heavy hunting clothing.

Bow Grip

Grip the bow loosely with the center of the bow handle situated just inside the meaty part of your thumb. Fully extend your bow arm toward the target. Note: The bow arm should always be fully extended before drawing the bow. Reach forward and grasp the bowstring (if shooting fingers) or the release and draw the bowstring back approximately two inches. The bow should be firmly seated in the bow hand. Relax the bow hand and cup the fingers slightly around the bow handle. Do not grip the bow handle tightly or place any pressure from your fingers against the side of the handle. The bow should be held as you might hold an egg. Firm enough to prevent it from dropping, but not tight enough to break it. A loose grip on the bow handle allows the bow to react naturally to the shot. A tight grip results in bow torque, erratic arrow flight and an enlarged group size.

Bow Arm

Once the bow hand has been set, draw the bow in one continuous fluid motion. Keep the wrist straight and low, directly behind the bow. This wrist position places the force of the bow in direct line with the bow arm. Positioning the wrist to the side causes the bow to torque on the shot, resulting in poor arrow flight. Attempting to shoot with a high wrist causes the wrist muscles to tire quickly. As these muscles tire the wrist changes position, resulting in changes to the arrow group. Lock the elbow of the bow arm to ensure the bow arm does not bend during the draw or shot. For the majority of shooters the elbow can be locked by rolling it slightly down and to the outside as the bow is drawn. For some shooters the elbow may be locked more comfortably by rolling the elbow in and up. While this position is rare, it does better fit the physical make up of some shooters and can work equally as well.

Bow Shoulder

Allow the pressure developed as the bow is drawn to push your arm back into your shoulder. This action results in a bow arm that is locked and rock steady. While it may seem natural to extend the bow arm at the shoulder, this condition is difficult to maintain. To illustrate this point try the following exercise: Position yourself within arm's length of a wall or vertical support. Extend your bow arm and lean against the support. Be sure you're far enough away because your arm must support a portion of your body weight. This weight will simulate the draw weight of the bow. As you lean against the wall, notice how your body automatically adjusts to its most comfortable position. That position is with the arm pushed back into the shoulder, creating a firm shoulder and bow arm. If necessary you could maintain this position for an extended period of time without fatigue. Try the same exercise again, but this time try to push your body away from the support by extending your shoulder and bow arm. Notice how quickly your arm and shoul-

der tire. Within a short time you will find they tend to collapse and want to press back against the body for support. Changes in the position of the bow arm and bow shoulder have a direct impact on the accuracy of the shot. Keeping the bow arm and shoulder pressed against the body not only provides solid support, but it's also easy to maintain shot after shot.

Back Tension

Tension is developed in the body when a bow is drawn. This tension is the result of pushing the bow out with the bow arm while drawing the string back with the other arm. The manner in which this tension is developed and released directly affects the accuracy of the shot. For maximum accuracy the tension developed must be centered within the back muscles. If an archer draws a bow using only the arm muscles, it's impossible to center the tension. The arms are independent extensions of the body and do not work as a unit. However, they are connected through one common point: the back muscles.

Talk to any experienced archer and you'll hear the words back tension. Proper back tension developed in the back muscles must be present before an accurate shot can be made. Keep the elbow of the drawing arm slightly higher than level while drawing the bow. The elbow of the drawing arm is an important key when transferring the force required to draw the bow to the back muscles. If you attempt to draw the bow with the elbow of the drawing arm below level you'll be forced to draw the bow with your arm muscles. This in turn does not allow you to set up the proper back tension. Keeping the elbow of the drawing arm above level during the draw not only allows the bow to be drawn with the back muscles, but actually seems to reduce the force required to draw the bow back. In short, it's not only better, it's easier. With the bow arm fully extended and the elbow of the drawing arm elevated, draw the bow to your anchor point feeling the tension in your back muscles.

Anchor Point

The dictionary's definition of an anchor is "to hold firmly in place." To obtain repetitive accuracy when shooting a bow, some sort of consistent anchor must be used. An archer's anchor point provides the rear sight for each shot. The anchor can be mechanical or physical. Examples of mechanical anchors are string peeps or kisser buttons. A physical anchor is defined as bringing the string, or some portion of the drawing hand, to a specific position on your face. For release shooters this could be laying the string along the edge of the nose and the corner of the mouth. For a finger shooter this anchor is normally obtained by placing the tip of one of the three string fingers in the corner of the mouth. This anchor also brings the string into close alignment with the eye, providing additional right and left sighting reference. In a hunting situation, the advantage of this side-of-the-face anchor is that little time is required to anchor and shoot. Many archers use some combination of both mechanical and physical anchors. Whatever your choice, the anchor must be comfortable, easily obtained and the same on every shot.

Aiming

As you reach your anchor point the sight pin should be settling in the middle of the target. If using a string peep, make sure the sight pin is centered in the peep. You will notice some motion in the sight pin. This is natural, don't fight it. The more you shoot the less motion you will detect in the sight pin. Simply focus on keeping the sight pin as close to the center of the target as possible. It's impossible to focus on both the sight pin and the target at the same time. One will be clear and the other slightly out of focus, unless you are shooting with a scope. Don't attempt to shift your focus from one to the other. Concentrate on the sight pin and simply place it in the middle of the slightly blurred target. Your eye will naturally center the two objects, providing the desired accuracy.

Release

While at full draw, concentrate on keeping the sight pin as near the center of the target as possible, while tightening the back muscles, ensuring all of the drawing force is centered in these muscles. These two actions set the shot up for the release. If shooting fingers, the act of releasing is accomplished by simply relaxing the string fingers. Don't attempt to let go of the string; simply relax the fingers while maintaining pressure in the back muscles.

If shooting with a release apply constant, steady pressure to the release trigger. Don't jerk the trigger, just squeeze it. A word of caution: It's always better to have a release trigger set slightly heavy rather than too light. Many archers compensate for poor form by setting their trigger releases as light as possible. Without realizing it, they develop a habit of punching or jerking the trigger, producing poor groups. If you start to shoot poorly for what seems like no reason, try increasing the trigger pull on your release, and try aiming and squeezing off the shot. You may be pleasantly surprised how your shooting improves.

Follow Through

When the arrow is released there is nothing for you to do except relax and follow through. Don't move your bow arm or head. Any unnatural or forced movement in the bow arm during the shot can affect the arrow's flight and grouping. Movement of the head is common because the shooter tries to see where the arrow is going to hit. Don't worry about it. If you've done everything correctly, the arrow should hit where it was aimed. Moving your head or bow arm on the shot affects the arrow flight and point of impact. A general rule of thumb is to hold your form until the arrow strikes the target.

Practice Techniques

While some variations are possible, the above outlined steps remain the core of proper shooting form. These steps must be practiced until they become automatic, but

should still be constantly reviewed.

Randy Ulmer, one of today's best known archers and bowhunters, carries a written checklist during all practice sessions. He constantly refers to the list to keep focused on the proper sequence of shooting form. Being an established champion, he takes nothing for granted.

My wife, Sandy, an accomplished archer, too, uses an interesting technique before and after each practice session, especially when her shooting is not at its peak. She stands 6 to 10 feet from the target butt and practices with her eyes closed. She concentrates on the steps of the shot, and on how the shot "feels." If she can perfect her form, the distance to the target doesn't matter. Does it work? During a Pennsylvania Clout round championship shoot several years ago she set a new record for the round by keeping her arrows in a 12-inch circle at a distance of 120 yards. Not bad.

The real secret to good shooting is in learning, understanding and practicing proper shooting form. Nothing drove that point home to me clearer than my recent involvement in the Becoming an Outdoors-Woman Program.

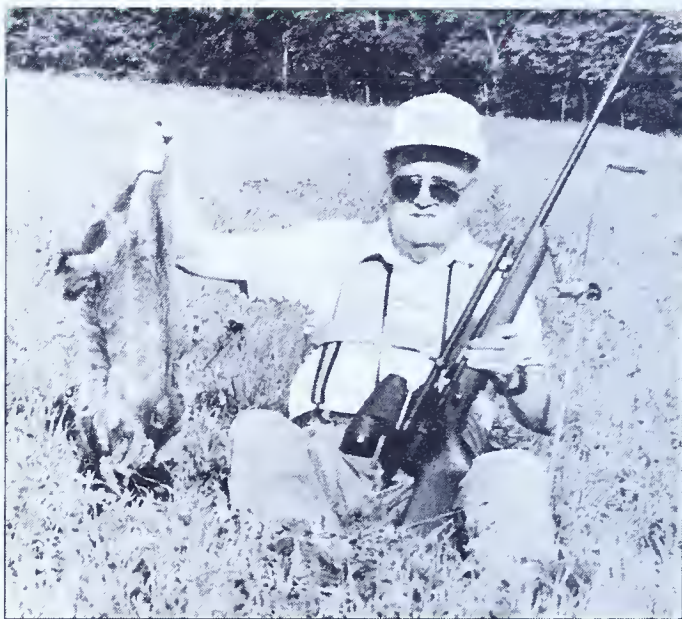
This annual 3-day event gives the participants an opportunity to try their hand at various outdoor skills under the direction of qualified instructors. For the last three years my wife and I have instructed the beginner's archery class. The class is made up of women, most of whom have never shot or even drawn a bow before. We have found that by getting the students to focus on the proper form and shooting techniques, their progress is surprisingly rapid. Women who at the beginning of the session could not hit a 3-foot target at 10 yards ended the 4-hour session by consistently breaking 6-inch balloons at 15 yards. The equipment they were using was not tuned or matched to the shooter, yet their shooting improved because they focused, not on the equipment, but on the secret to good shooting: proper form. □

Woodchuck hunting used to be looked upon as just something to do when nothing else was in season. Now, chuck hunting enjoys a dedicated following.

Spring Fever

ON THE opening day of trout season Tom Leete and I sat on a hillside bathed in sunlight. Patches of snow were visible on the opposite hillside, along with a half dozen chucks. While we were discussing how to handle the fairly strong crosswind, the brightness dwindled to almost a twilight gray and large flakes of snow turned the ground white. As quickly as it came, though, the storm left and the sun came back out. We took turns shooting at chucks 275 yards across the valley, but the gusting crosswind spoiled most of our shots. After being hit a second time with heavy snow flurries, I mentioned to Tom that most nonhunters couldn't understand the logic of two chuck hunters sitting in wet grass, covered with snow, firing at groundhogs. Tom's reply was short and right to the point. "I'm not certain I understand it, but I think it's what's called spring fever."

By this time of year spring fever should be surging through the veins of dedicated chuck hunters. Most will have spent the winter reloading ammo, refinishing a stock,



Helen Lewis

DON LEWIS has been an avid chuck hunter for nearly 60 years. He's shown here with a Remington Scoremaster .22 topped with an antiquated Winchester B-5 scope that dates back to the early 1900s.

or perhaps even buying a new varmint rig.

In April the ground begins to warm, and by late May the groundhog birthing season is over and the shooting can begin. In areas where chuck populations are literally out of control, many landowners welcome chuck hunters as soon as the snow is gone.

Varmint hunting has a long history, but for decades varmint shooting, especially woodchuck hunting, was generally done

only when other types of game were out of season or in short supply. That's not true today. Varmint hunting is a major sport, and rifle manufacturers are offering rifles designed specifically for long range varmint shooting. Years ago factory varmint rifles were simply regular hunting rifles chambered for cartridges such as the .22 Hornet, .219 Zipper, .22 Savage Hi-Power and the Winchester .220 Swift. Heavy barrel outfits were available only from custom rifle builders, but most varmint hunters of that era didn't know about custom varmint rifles or couldn't afford them.

Benchrest shooters back then were modifying hunting rifles into competitive rigs. Basically, it involved little more than installing a heavy barrel and tuning the trigger. Sleeved actions, special stocks, precision chambers and balanced bullets were a few years down the road. However, little by little, benchrest shooters proved that one-hole 5-shot groups were possible.

There's no question that today's varmint rifle has its roots in benchrest shooting. The .22 Hornet, .220 Swift and .250-3000 Savage would have won the hearts of thousands of varmint buffs if they would have been available over the counter in heavy barrel outfits. In early 1950 Remington brought out its new .222 in a Model 722 rifle that had a sporter-type barrel. However, the .222 cartridge converted thousands of hunters into varmint shooters, and the quest for accuracy began in earnest.

I'm not sure when factory heavy barrel varmint rifles hit the market, but I recall using a new heavy barrel .243 Winchester Model 70 varmint rifle around 1961. And by the late '60s, most gun manufacturers were offering heavy barrel varmint rifles. For a few years the .222 Remington was the choice of the majority of varmint hunters. Although the .22 Hornet, .220 Swift and Savage .250-3000 cartridges had been around for decades, the .222, with its inherent accuracy, led the pack.

In 1955 Winchester and Remington introduced slightly different versions of the

.243 caliber — the .243 Winchester and the .244 Remington. The two cartridges were almost identical, but the .244 Remington suffered when shooters learned the slower twist of the .244 (1 in 12 inches) would not stabilize bullet weights above 90 grains. The Winchester's faster 1 in 10 inch twist had no problem with bullet weights up to 105 grains, and this factor alone hurt the Remington .244. From a pure ballistic viewpoint, the .244 had a slight edge over Winchester's .243. The .244 Remington had a lot of the characteristics of Fred Huntingdon's .243 Rock Chucker wildcat, which was based on the .257 Roberts case. Huntingdon's .243 Rock Chucker had a sharp 32-degree shoulder angle, but the .244 Remington had a 26-degree angle.

I've read that Remington designed the .244 strictly for varmint hunting — hence the slower 1 in 12 twist, which is ideal for bullet weights up to 90 grains. Winchester took a different approach and advertised the .243 as a combination varmint and big game cartridge. As far as a varmint hunter was concerned, the .244 was a wiser choice than the .243, but Remington's .244 never recovered. In 1963 Remington reintroduced the rifle as the 6mm Remington, with a 1 in 9 twist. The case remained the same, but factory cartridges were now loaded with 80-, 90- and 100-grain bullets. This simple change made the 6mm a dual-purpose cartridge that the .244 should have been years before.

All the furor over the Remington .244 was as pointless as the hue and cry over the .220 Swift's so-called deficiencies. When Winchester introduced the .220 Swift in 1935, the factory cartridge's 46-grain bullet exited the muzzle at over 4,000 fps. Winchester brought it out in their strong Model 54 rifle. I guess right from the start the .220 had its detractors. The higher chamber pressures of the Swift had a tendency to shorten case life. On top of that, the powders of that day caused premature barrel throat erosion. The bad press given to the Swift kept this terrific varmint

cartridge out of the hands of thousands of hunters.

The downfall of the Swift back then was its muzzle velocity. Instead of using heavier bullets at speeds around 3,800 fps, which still made the Swift a long-range cartridge, it was touted as a 4,000 fps cartridge with lighter bullets. This caused another problem. With the Swift's high velocity, some

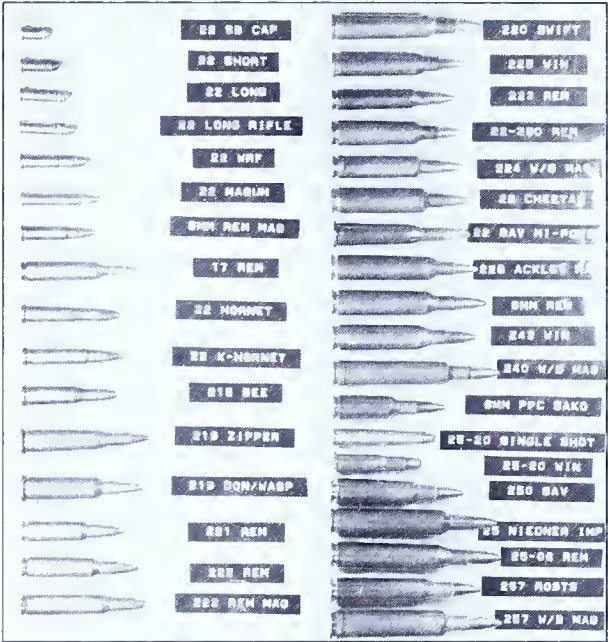
for decades, but it is finally getting the recognition now that it was deprived of in the Depression era. Today we know the Swift is a top varmint cartridge. With modern components and using 52- or 55-grain bullets at muzzle velocities somewhat under 4,000 fps, the Swift is an accurate long-range varmint cartridge. Fox and coyote hunters should stick with 60- to 70-grain bullets, and big game hunters should stick with conventional big game cartridges.

It's true that most varmint hunting offers long range shooting opportunities. By long range, I mean distances beyond 100 yards. With an accurate scoped rifle, varmint hunters now can expect to score consistently up to 400 yards. I know many varmint hunters will challenge my statement and claim to routinely hit targets up to 600 yards. I won't argue the point, but most of us are not able to score consistently much beyond 350 yards. Consistently to me means at least seven out of 10 shots.

Years ago I shot across a shallow valley that was just short of 550 yards to the edge of a woods. A stake and rider fence with many chuck dens measured 441 yards from where I had a shooting table. I used a friend's custom heavy barrel .220 Swift that was zeroed on a large den about midway

along the fence. When the wind was still, I shot fairly well out to the fence and made an occasional shot at the edge of the woods. In even a slight wind, though, the 55-grain Sierra spitzer bullets would wander. When you think about it, though, placing the tiny projectile in a small target over 1,300 feet away is no small task — even when conditions are ideal.

Exact bullet placement is one of the most rewarding factors involved with varmint hunting. But to shoot well consistently means reducing the yardage. It also requires a lot of patience. In other words, the bullet placement buff not only has to



Helen Lewis

AN ARRAY of varmint cartridges, both conventional and wildcat. The .22 BB cap, .22 Short and Long, are not suitable for clean kills, but varmint cartridge history dates back to them.

of the less knowledgeable gun writers of that era insisted it was adequate for medium size game like deer and antelope. The sad part is that many big game hunters believed them. From a velocity standpoint, that might have been true, but the fragile lightweight bullets used then in the Swift simply blew up on impact. They weren't designed for big game. Legend has it that many big game hunters soured on the Swift because it failed in the woods. I find it hard to believe that common sense would not have kept the .220 out of the hands of big game hunters.

The Swift remained in a moribund stage

be selective with yardage, but he or she must wait until conditions are just right. One veteran groundhog hunter told me he didn't score a kill unless he made a perfect neck shot. That's pretty demanding and puts a strain on even an experienced hunter.

There are many facets to varmint hunting. The equipment needed varies from a common .22 rimfire single-shot rifle to a custom heavy barrel, high velocity rig. I've spent hundreds of enjoyable hours with a .22 rimfire with iron sights. The longest shot I recall was just short of 90 yards. When I finally got a scoped centerfire outfit and began reloading my own cartridges, a new dimension was added to my life. Even after 60 years of varminting, a chuck bolting upright 200 yards away still gets my adrenaline going. Varmint hunters do not count points, mount heads or make fur rugs

for their dens, but they do enjoy the enviable position of being some of the best rifle shots around.

One fall afternoon I gave four chucks to a fellow whose wife canned (cold pack) chucks. He was elated that his plans to hunt elk out West were almost complete. After hearing about the shooting skill and physical stamina required to be a successful elk hunter, he asked me if I thought I could hit an elk. After diplomatically pointing out that I had just killed two chucks at 335 steps, I asked him if he thought my shooting would qualify for elk hunting.

Not many varmint hunters are recognized for their trophies but, as unsophisticated as varmint hunting may be, there are thousands of us in Pennsylvania who count the winter days waiting for spring fever. That's how powerful this malady is. ☐

Fun Games — By Connie Mertz

Color Coded

Do you know the color of these wildflowers? Place a W for white, Y for yellow, O for orange, G for green, V for violet/blue, or P for pink/red.

- | | | | |
|---------|----------------|----------|----------------------|
| 1. ____ | Bloodroot | 8. ____ | Trout lily |
| 2. ____ | Day lily | 9. ____ | Wild geranium |
| 3. ____ | Marsh marigold | 10. ____ | Dandelion |
| 4. ____ | Common ragweed | 11. ____ | Spotted touch-me-not |
| 5. ____ | Showy aster | 12. ____ | Bellwort |
| 6. ____ | Mayapple | 13. ____ | Mountain laurel |
| 7. ____ | Wild ginger | 14. ____ | Virginia cowslip |

- A. Which three wildflowers bloom in late summer? ____ ____ ____
- B. Which is Pennsylvania's state flower? ____
- C. Which three plants have edible parts? ____ (leaves) ____ (root) ____ (fruit)
- D. Which causes hay fever? ____

answers on p. 64

In the Wind

By Bob D'Angelo

The Pennsylvania State Chapter of the National Wild Turkey Federation has reached a milestone in its efforts to support and promote wild turkey management. During 1997 the PA State Chapter Super Fund surpassed the one-million dollar mark for expenditures on turkey management in the state.

Hunters in New Jersey took 2,420 gobblers during the 1998 spring season — up from 2,034 in 1997. In 1998, 20 percent of the harvest was taken on public land, and Sussex County was tops with 560 birds taken.

Spring turkey hunters in Pennsylvania have an average success rate of 14 percent, while hunters during the fall average 16 percent.

Turkey hunters took 12,467 gobblers in West Virginia during the 1998 spring season — down 11 percent from the previous spring. Gobblers were taken in all 55 counties, and Mason was tops with 489 birds. Brood counts last summer were seven percent higher than the previous year, and biologists are predicting that 13,000 birds will be taken this spring.

Hunters took a record 1,016 gobblers in New Hampshire during the 1998 spring season — up 34 percent from the 760 taken the previous spring.

Turkey hunters in Wisconsin experienced a 28 percent success rate, taking 28,335 gobblers during the 1998 spring season.

There were 119 turkeys taken in Delaware during the spring 1998 season — down from the 152 taken in 1997. The '98 harvest included 66 mature gobblers, 47 jakes and six bearded hens.

Turkey hunters harvested 2,589 gobblers in Maryland during the 1998 season — up 5.5 percent from the previous spring's take of 2,454 birds. Garrett was again tops with 502 gobblers taken.

Turkey hunters took 48,323 gobblers in Missouri during the 1998 spring season — up 46 percent from the 33,044 taken in 1997. There were six incidents, including one fatality, during the '98 season.

A King George County, Virginia, hunter has tied the world record for the Eastern subspecies of wild turkey with a bird that sported a 17½-inch beard.

A Michigan man was fined \$1,695 for deliberately running down a turkey with his vehicle.

Hunters took 2,450 turkeys — a record harvest — during Vermont's spring gobbler season last year.

Answers: 1, W; 2, O; 3, Y; 4, G; 5, V; 6, W; 7, P; 8, Y; 9, P; 10, Y; 11, O; 12, Y; 13, P; 14, V.

A, 4, 5, 11; B, 13; C, 10, 7, 6; D, 4.

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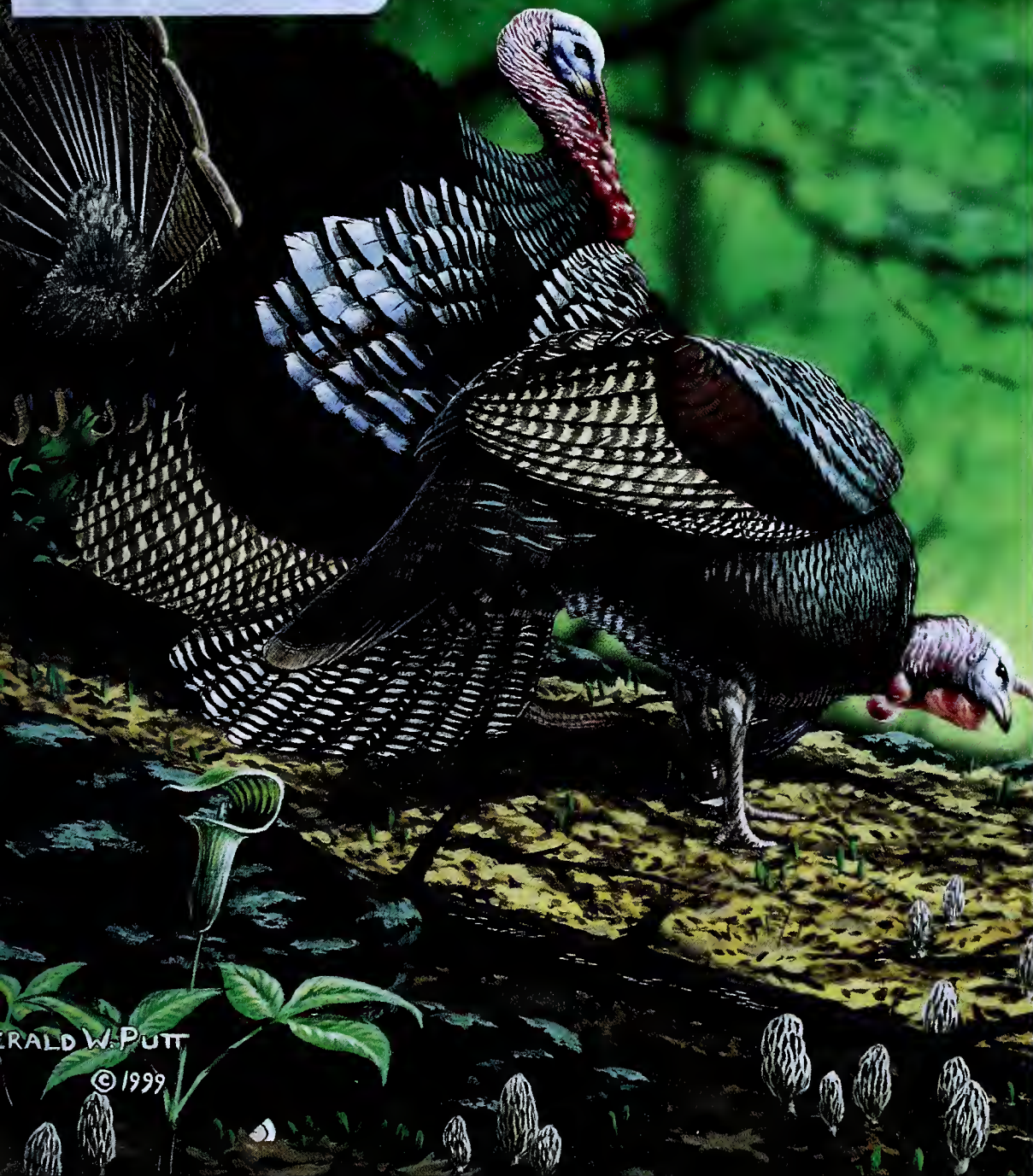
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From the 24th Class

By Randy W. Pilarcik,
24th Class Spokesman

ON BEHALF OF THE 24TH CLASS, I would like to welcome and thank you all for attending. We are truly honored by your presence.

Aldo Leopold once said, "There are some who can live without wildlife and some who cannot." It is with this belief that 13 of us came to the Ross Leffler School of Conservation. It is with these same ideals that 13 individuals became bonded with the same concerns and goals pertaining to our wildlife, its environment and our hunting heritage.

On June 7 of last year our training began and has continued to this day. Over the past nine months our daily routine has been nearly the same. We were up by 5:30 each morning. Physical training from 6 to 6:30. Breakfast at 7. Classes began at 8 and ran some evenings to as late as 9. Law enforcement, wildlife management, land management, conservation education and public relations, firearms training and unarmed self-defense, history of our commonwealth and wildlife forensics were just some of our classes.

Though our days were busy, some of our evenings were spent talking to each other, sharing feelings and hardships of being away from our families. It seemed to lessen the burden to be able to talk to each other. Regrettably, there were others who needed to talk to someone, but they were not able to do so. I would like to take this opportunity to offer our most heart felt gratitude to those who gave the most, our families. Thank you for your patience over the past nine months.

Our time at the training school has ended and we are about to embark on a new journey, one that will have many twists and turns. The training we have received will help us meet those obstacles in the road. We are graduating here today as wildlife conservation officers, employed by the Pennsylvania Game Commission. Some may ask why this profession, what necessitates the need for this job. To answer those questions, one does not need to travel far into history.

A look at wildlife in the 1800s shows that the once plentiful eastern elk were eliminated because of unregulated hunting. The last Pennsylvania elk was shot in 1867.

One day in 1846 a flock of passenger pigeons was observed from 12:30 p.m. to 4:30 p.m. that extended from horizon to horizon. The last passenger pigeon died in the Cincinnati zoo in 1914. In 1870 a market hunter boasted of killing 6,000 ducks in one season. By the turn of the century, waterfowl numbers had dwindled to frightening lows; the wood duck was near extinction.

With concern over dwindling small game, more than 180,000 birds of prey were reported killed from 1885 to 1886. Beavers and fishers were extirpated from the state. River otters were eliminated from everywhere but the northeastern part of the state. By the turn of the century, around 200 deer existed here. Wild turkey populations were found only in the most rugged mountains.

The dwindling numbers of wildlife was not unnoticed. A group of concerned sportsmen convinced the legislature in 1895 to create the Board of Game Commissioners, later named the Pennsylvania Game Commission.

1900 to 1930 was the era of protection, noted for the beginning of law enforcement and restocking of wildlife. In 1900 the Lacey Act was created to stop interstate commerce of wildlife. The 1918 Migratory Bird Treaty Act created seasons and bag limits for

waterfowl in the United States, Canada and Mexico. Deer were stocked from Michigan. Elk were introduced from Yellowstone and beaver from Wisconsin. In 1920, the first game lands was purchased.

From 1930 to present is known as the era of scientific wildlife management. New laws were created to help wildlife. In 1934 the Migratory Bird Hunting Stamp was started, where waterfowl hunters purchased a federal stamp and the money was used for wetland conservation and waterfowl research. In 1937 the Wildlife Restoration Act, better known as the Pittman-Robertson Act, created an 11 percent excise tax on firearms and ammunition. Monies from this tax are returned to the states for wildlife habitat restoration.

During this period of time, wildlife populations began to grow. Our deer herd is now over one million. Wild turkeys, beavers and bald eagles are found throughout the state. Wood ducks are our second most abundant duck. The elk herd has expanded to nearly 500 animals. River otters are now found in every major watershed. The state now has 294 state game lands totaling more than 1,386,000 acres. These accomplishments were possible because of the foresight and hard work by many concerned individuals.

It appears that the best time for wildlife is now. But it must be noted that from 1950 to present, Pennsylvania has lost 50 percent of its farmland. Urban sprawl has consumed most of the southeast, which was some of the best pheasant habitat in the world. Every year more than 1,000 acres of wetlands are lost, wetlands that support 25 of our 36 endangered species and 61 percent of all wildlife species.

The hunting population is growing older, and we are seeing a gradual decline of license sales. Recruitment of young hunters is also declining. An ever-increasing number of Pennsylvanians are becoming suburbanized, losing touch with the natural world.

What do these issues mean to the 24th class? Leaving here today as wildlife conservation officers, we take with the title the responsibilities to make a difference and to continue the legacy set before us. The role of conservation officer was once limited mostly to law enforcement, but today there is an emphasis to educate today's youth about wildlife conservation and our hunting heritage.

Programs such as Youth Field Day, Project Wild, Envirothons, and classroom education help build a better understanding of our wildlife resources. These are just a few of the many programs we are able to provide to educate today's youth. If we do not teach our children about wildlife resources, who will?

As the human population continues to increase, more habitat disappears and more demands are made on our natural resources, what will happen to our wildlife and hunting? The commitment of the 24th class is to learn from our predecessors and take the lead into the 21st century. Our mission is to take the training we received here to provide more knowledge to others, so they may be better informed about our wildlife resources. We cannot and will not miss the opportunity to educate.

On behalf of the 24th class of the Ross Leffler School of Conservation, we would like to thank the entire training school staff for the outstanding training and support they provided.

And finally I would like to thank my classmates for the honor of being their spokesman today and to end with a quote by Chief Seattle, of the Suquamish Indian tribe: "What is a man without beasts? If all the beasts were gone, Man would die from a great loneliness of the spirit."

Presented at the graduation ceremonies for the 24th class of wildlife conservation officers from the Ross Leffler School of Conservation on March 13, 1999, at the Susquehanna Township High School in Harrisburg.



Within Me Forever

By Joe Parry

HE HAD BEEN an avid hunter for nearly 45 years. The endeavor had become a sort of religion to him. And he somehow felt a nagging sorrow for those who never chose to hunt, or to touch, feel, see, hear, taste and inwardly experience the wonders that only hunters can. He is, in his heart and mind, a millionaire.

Nothing or no one could ever steal away that palatable richness he could always summon at the mere closing of his failing eyes. And his health, more than just moderately failing him now, forced him to lay down his beloved firearms. Perhaps the occasional, easy, grouse hunts, and the double season for turkeys would be in his future. He didn't know for sure. Only the Great Spirit knows the script, and he shall follow it as He might ask of him.

When the first autumn arrived after he realized he could no longer navigate his most favored coverts or the core areas of his beloved whitetails, he felt with a cumbrous sorrow that he would have to be satisfied with a couch potato status. Memories of past hunts, especially those moments beneath steel-blue winter skies he'd spent with his son in the serenity of enchanting sylvan chasms, would be reason to rejoice, and with those memories of the precious few others with whom he, on rare occasions, shared the hunts of autumn.

His many guns stood erect but grossly dormant in the corner by the hutch, in his modest living room where he would always be near them. Dust from a nearby furnace duct left its visible toll on his usually sparkling collection. Only one, a

7mm-08, always stood out as cleaner, more special than the rest. One which, during a hard time in his life, had been given to him by a dear friend. Something about that little gun is sacred to him. From the time it was given to him it became a benediction in steel and walnut.

His tolerant wife of near countless years would always jokingly say, "The house has always leaned a little toward that side where his guns are standing." And he would laugh at that. For in an abstract sense, his many firearms were like children to him. Each carried its own selection of golden memories stored safely inside the finely grained walnut stocks. When these memories — his only wealth — were needed, he would pluck a gun from its special place and handle it much like a person would a newborn puppy. And only then, during those times of needed fondling, would they be made to sparkle once again. Never was there a deliberate effort to clean them, as there was during those times when hunting was an obsession. Anymore it's only the 7mm-08 and a vintage Ruger flat-bolt in .284 Winchester given to him by another friend, because he had cried on his shoulder about always wanting one, gets any real attention anymore.

If a person were to have stolen a look through his evening window, through a glazed kaleidoscope of tenacious winter ice, they may have seen him smiling. Pipe clenched securely between his acrylic teeth,

smoke curled like a bland wreath above his thin, graying hair, coaxing up the memory of his first buck. A memory, which although two-score old, seemed like yesterday. Difficult, perhaps, to retrieve, but he forever managed by closing his eyes tightly, then tighter, until, finally, it was there, and he found himself in a forest of yesteryear, still-hunting as his grandfather, father and uncle had taught him.

He deplored something he was born with, a keen sense of perception that was all but scary at times. He wished he could discard it, but of course he couldn't, so he'd learned to live with it. Things he'd perceived prematurely were what he called gut feelings. Those same feelings had caused him to realize, sooner than he wanted to, that it wouldn't be too long before his days like those when he took his first buck would be over for good. Those times belonged to yesterday. A place he could only summon in dreams and memories.

The ridge top where he'd killed his first buck, a loping 4-point, was just behind his rural boyhood home about five miles out of Greensburg. He carried an old 1903 Model A-3 .30-06 Springfield that had the most perplexing iron sights, with an ungodly elevation slide etched with yardage numbers he'd never need.

He'd jumped the group of five deer not long after starting out. They ran directly away from him and over a roll on the hillside. He reminisced about holding his breath for what seemed like an eternity. When you're holding your breath and your first five deer are getting away, lickety-split, flags at full staff, and one's wearing legal headgear, let me tell ya, 10 seconds is an eternity.

His uncle, Buck Budd, however, had taught him well the intimate

habits of wary whitetails. If he could get to one side of their chosen escape route, then pray like a starving man they would circle back, he might be in business. Luck was with him; he chose the right side, and the rest as they say, is history. At the crack of his old military rifle, the 4-point fell.

He struggled desperately with the slingless rifle and crudely field-dressed buck, through brush and briars that clung to his hand-me-down woolen pants as though intent on devouring his tender, 16-year-old flesh. No regrets though, mind ya.

The hour walk he and his Uncle Buck had taken going in took some five hours to retrace. But they eventually made it. And ya know, old Uncle Buck never once offered to help in any way. Didn't quite understand it then. Do now, though. And the veal-like tenderness of that buck is a memory that's fully alive and well within him today.

Then he remembered back when he'd taken the revered double on grouse. It was Pap's favorite game bird, Buck's, too, and they came home with too darned few, according to their rare honest accounts.

He remembered "War Baby Doubles" that he'd written for *Game News* in 1984, that walked readers through that hunt. He could never forget how excited Pap was that day, or the tears in Uncle Buck's warm sky-blue eyes. Each of them was so proud of him. Fact is, he remembers Pap getting really fired up when he told it on the day it happened, as they all stood in the spruce-framed front yard outside of Greensburg. He got his tongue all wrapped around his eyeteeth and said to the gang, "That there boy of mine shot goubles on drouse." We all laughed.

He also remembers the time Pap asked him to get across the road to Crissinger's Swamp and bag a couple of ringnecks. Pap slid two hulls into the old German double and handed it to him, smiling. He

wanted to show his business partner and best friend, Tony Morelli, the boy's stuff. The kid was a nervous wreck with that show-your-stuff business. Lot of pressure to put on a boy, giving him an audience and telling him to go get dinner. In addition, he had to hope for a flush close enough that the two could see him from where they stood on the front porch, which did sit rather high and allowed for a good view of the swampy field.

He carried the old double open until he made the tentative leg-spread over the rusty barbwire fence, then eased her shut. It sounded like the closing of a Swiss safe. He no sooner took a step when several birds flushed. Two of them wore white neckbands, and one went straight out in front while the other veered to the left.

He had to wait a second or two, cause the old double shot tighter than the southbound end of a northbound chipmunk but, in short order, he cut loose. The going away bird folded up like one of those origami birds he made as a kid. The rooster on the left had just leveled off with wings set to glide when the German tossed pellets at it. The bird acted like it was hit, but changed its flight pattern, turning toward the house just after he'd shot. Wings locked, it was heading directly for the front porch where Pap and Tony stood watching.

That ringneck looked like one of those paper airplanes tossed in school when the teacher had her head turned. That doggone bird smacked right into the porch and fell dead. He'll never forget what Pap said to Tony. "Not only can my boy shoot like the dickens, he delivers the goods, too." Pap later told him that Tony had asked whether Joey did that all

the time and, of course, Pap, joker that he was, said to Tony, "Doggone right he does, Tony, look who taught him." Memories, the greatest gift a life of hunting gives a man.

This is why he knows that his percolating recollections will keep him warm and full until the Great Spirit calls him to that place where hunting season never ends. And where a hunter is never too old to walk the fields and witness autumn sunsets.

He recalled yet another time in his life when finances were tight, a time when buying a holiday bird would have strained the family budget. He'd killed a young buck that year, and his kids, whom he feared had inherited some of his acute perception abilities, asked why they couldn't just have a big old venison roast for Thanksgiving.

He plucked some carrots and beets from the sand bucket in the cellar, placed pearl onions around the roast, sliced some slab bacon and



then prepared the Thanksgiving meal. The kids insisted they preferred a meal of venison, and today, as he reached back to that time, he believes they had really meant it.

He can recall every word, almost hear them in fact, of the grace said at that Thanksgiving meal. They each said their own thanks, aloud and in traditional order, but each thanks seemed so much warmer than the usual. Their prayers had softer tones that seemed to come from deep within.

He shifted into a more comfortable position in his old, overstuffed chair, and recalled his two greatest memories, when his son shot his first deer, a fat old doe, and his second deer, a little buck. Knowing his son could shoot as well as him, when his son missed a shot at his first doe he asked if he'd bumped his scope or dropped his rifle. The boy said he hadn't done either. They went down behind the barn to check. Sure enough, it was shooting low and

about five inches to the right. Anxious for his son to get a deer, he told him to take his reliable old .30-06. The boy was reluctant, because he had always called that old gun Pop's magical one-shot "thirty-ought."

He laughed, remembering the time he took that rifle out West for elk. Cowboys out there had poked fun at the gun, but nobody was laughing after he killed a good bull at 400 yards.

Well, long and sweet story made short, Justin took a huge doe; one shot at 70 yards and down she went. He told Pop afterwards that he was shakin' like Maggie's drawers in a windstorm. Pop has to admit that afterwards, when the boy wasn't around, he shed a tear because he was so happy. His son thanked him and reminded him of how special Pop's gun was. Great memory, that one, one of the precious few that sits in the front row.

He remembered his son's first buck, and one could almost see his heart beating beneath his faded plaid wool shirt, one his son had bought him for his 50th birthday.



Some might say he and his boy got into the woods a bit early that year. Perhaps. But to his way of thinking, a hunter never gets into the deer woods too early. Just after daybreak he had his 16-year-old son sit tight, near a blowdown, while he sneaked across a mountaintop swamp. Figuring he'd push out a thick section of woods toward the stand, he remembers his son cutting his instructions short and saying that he'd lived and breathed hunting since he was on Similac formula. And he was right. He didn't need any instructions.

He had just begun the drive when he heard his son's 7x57 bark in the distance. He wasn't sure just when the buck broke out of that thicket, but from the way he pieced it together in his mind before returning to his son, he figured the boy had to take a pretty long shot. When he reached the boy, his son's forehead was covered in tiny sweat droplets. The boy said that the buck had come out on the far side of the swamp, and he knew that he could put it down at that distance. He questioned, without time out for a breather, "that it had to be better than 200 yards across there, huh, Pop?" He had dropped that buck in its tracks.

Before they went over to the buck, the boy asked his father to take a look at the trunk of the fallen hemlock where he'd set up. Carved into that ancient tree was the name, Sam. Only Sam they ever knew was Pop's kid brother's dog that had died several years before.

"Think it's some sort of omen like you're always talking about, Pop? I mean Sam's name being carved on that old tree?" the boy asked.

He told him that it certainly seemed like a great omen, that it would be wonderful to remember it as such, in old Sam's honor.

Never in the old hunter's life would he find the tepid memory of his son's first buck far removed from where it may be immediately recalled. That morning the

young man carried a look in his eyes more precious and brilliant than the northern lights. It would be next to impossible for him to forget exactly what his son had said while draggin' that fat buck off the mountain. He said his buck was the very thing great memories were made of, and fine young man he is, he never once mentioned how long his shot was. Pop had stepped off more than 250 yards as they walked to it that morning, more than a hundred paces farther than any shot Pop had ever made hunting whitetails.

And the boy told his father something else that day. He had said, "Memories of this day hunting with you, Pop, will live within me forever. Thanks for the hunt, Pop, I love you."

I happen to know that the old man feels exactly the same as the boy in this story. Teardrops lay on the rim of his wrinkled eyelids as he so tenderly summoned the memories. And anyone with a heart could tell from that glistening, there were many more memories.

During hunting season, should you drive past his old farmhouse, you may see him sitting alone in his office, looking out toward the woodland across the road. He'll be reminiscing about golden hunts now long gone, with a warm smile on his weathered face. Because, for this old hunter, those hunts sit in the front row of his mind and heart where he may easily, and so very often, touch them needfully and yes, as warmly, as only an old hunter can do. And that moment in time may have marked the first in the history of the world that the rains came after the rainbow. That is the rain in the old man's heart. And that moment when he had to bid his days of walking the rainbow a reluctant goodbye. □



Southwest Gobblers

By George H. Block III

AFTER BEING on this earth for more years than I care to admit, I'm still not sure what I'm good for. I can't fix my automobile and I hate plumbing. Computers are not yet my field, and I'll never play quarterback for the Steelers. I'm a fairly decent deer hunter, but I know many who are better. Outdoor writing has always held my interest. Story telling comes naturally to me, and my writing is related to my hunting, fishing, handloading and fascination with firearms.

I went to a familiar spot on a friend's farm and hunkered down behind the roots of a fallen tree. The late April air was crisp, and the promise of daylight excited me. I thought about the promise I had made to my friend who had cancer and was confined to a hospital bed. We had hunted together for five years, and each year I had downed a gobbler on this farm.

This year Gleason couldn't be with me, yet I felt his presence as surely as I could imagine him sitting quietly at the edge of the woods on a spring morning. I was always amazed at his ability to sit motionless for long periods with no apparent discomfort. The man was content just to be soaking in the warm sun, watching and listening for gobblers.

The previous night I sat beside his bed and talked of past turkey hunts and of those to come. Yet he and I both knew the ones to come for him would never take place. As I left he asked me one favor. He wanted a long tail feather from a gobbler to place in a vase beside his bed. I vowed to fulfill his request.

It was just before dawn when I heard the first gobble across the open field. The sound brought me from my reverie. I stared through the gray morning light, watching

for some movement. The bird gobbled again, and I knew he was on the ground. It was legal hunting time by now, and I could see well. I was at the edge of a 400-yard field that had a swale in the middle. The bird was calling from a small woodlot to my left, which was good because the cover was thicker on that side. Cradling the slate call in my hand I drew the peg across it three times, sounding like a hen looking for company. Immediately the gobbler responded. I knew that if he stepped into the field he would see my three decoys.

The tom soon emerged and strutted to the top of a knoll about 300 yards away. Strutting and continually gobbling, the bird put on quite a show. Looking like an awkward helicopter, he kept jumping a few feet off the ground, gobbling with each jump. He was watching my decoys, hoping they would come to him. After what seemed like an eternity, he fanned his tail and started running toward them. Halfway across the field the gobbler disappeared from view as he dropped into the dip. When he emerged, he moved to my left and out of view.

I was tempted to peek around the vines that obstructed my view, to see where he was, but I didn't chance the movement. I had the gun ready, and when the gobbler came back into view he ran right to the decoys. I waited a few moments before shooting, to relish the moment and to silently thank Gleason for introducing me to the exciting world of spring turkey hunting. Less than an hour into the season I had filled Gleason's request.



THE NIGHT before the gobbler season opener I sat beside Gleason's hospital bed, and we talked of past turkey hunts and of those to come.

I had begun spring turkey hunting many years before that hunt. Back then I didn't know what I was doing, but I still made a few trips to the mountains, where I'd hunt turkeys in the morning and fish for trout the rest of the day. I must admit that I did better on the trout waters than I did in the turkey woods.

Turkey hunting near my home in Washington County began to improve around 1988, and soon after, when large flocks became common, I decided to get serious about hunting in the spring. I bought several friction calls: glass — slate and aluminum — and tube calls, but I've always liked the slate calls best.

In one instance, after dropping off my wife at her job at 8 o'clock one rainy morning, it occurred to me that I didn't have to be out at daybreak to hunt turkeys. I left the house about 9:30, shotgun in hand and with a turkey call in a plastic bag in my pocket to keep it dry. Trudging up the hill behind my house I stopped at the edge of the field, checked for game and then headed for thick cover. There was a briar patch between two big fields, and I thought I'd try calling from there.

Settling down in the cover against a large tree, I dug out the call only to discover that the rain had saturated it. A small spot in the middle of the slate was fairly dry, though, so I brought the peg carefully across it. The first yelp had barely died away when I heard a gobbler about 75 yards away. Again, I yelped and the gobbler answered. The red head soon appeared, then the beard. Getting my first gobbler was surprisingly easy. When Eileen got home that afternoon I couldn't wait to tell her about my hunt. "You walk out back, sit down, make a call and the bird comes running," I said. Of course, subsequent years proved it doesn't always work that way.

Far from being an expert turkey hunter, I've always felt that a big part of any type of hunting is simply using common sense. For instance, I've learned the value of decoys and how to use them. After bagging a longbeard in almost every one of the past 10 years, I must be doing something right. Sometimes, when a long walk is involved, I use only a single decoy. But when practical, I use several. No, I don't set up a flock of the artificial birds, but I do like a decoy to be visible from any direction a gobbler may approach. Sometimes I'll place a decoy directly in front of me and one on each side. I'm convinced that all the caller needs to do is bring the gobbler in to where he sees the decoys. Under most conditions the decoy will draw in the gobbler. Once spotted, the decoy is often the gobbler's center of attention.

A hunter also needs to know where the local turkeys roost. Any noise while walking in during the early morning, such as footsteps, sticks breaking or jingling keys will quickly spook a roosting flock. I much prefer to set up too far from roosting birds rather than too close.

Just last spring I went hunting with my buddy John Dino from Canonsburg. We were running a little late, and the sky was already brightening as we reached our stands. Just as we were placing our orange bands around trees in our set-up areas, a tom gobbled in a tree no more than 30 yards away. We dropped down and put on our facemasks. A few moments later the worst calling I've ever heard came from John's direction. I couldn't wait to tell him how terrible his calling was, but then a hen that had been doing all the calling stepped into a little clearing. We had moved too close to the birds, though, and the gobblers had headed the other direction. Why that hen stayed around I'll never know.

My greatest turkey hunt came on a day when I didn't bag a turkey. Now and then, regardless of what game is hunted, everything falls into place. That season was one of those years when everything went right. I had taken a jake on opening day. In fact, after taking that bird, I had decided to stay where I was because Gleason was still set up. I thought that perhaps by calling I could bring a bird to him. Before the morning was complete, I had called in three more gobblers, each one larger than the one I had tagged. Naturally, none went past Gleason.

The next day was Sunday, and Eileen and I were taking our usual walk near home. I had placed a call in my pocket, and we were resting on a fallen tree when I decided to show her how to call a turkey. My first yelp was answered. I told her to get down behind the log, and we watched a big gobbler step into an opening. That did it. Eileen wanted to go turkey hunting.

Monday found us where I had taken my bird on the opener. The first hour was uneventful, although we heard gobblers off

in the distance. Cradling the slate call, I pulled the striker across its face. I tried every trick in the book and then it happened. A couple hundred yards off to our left a bird gobbled. Again and again he gobbled, and I kept up my calling. To reach us the bird would have to cross about 150 yards of open field, but I had called birds from that area before, so I was confident. Amazingly, not one but five turkeys entered the field. I could see that four of them had beards and were strutting around. I would drag the peg across the slate and they would open up, fanning, then run a little ways in our direction and stop. After some coaxing, they headed toward the fake hen.

Needless to say, my fingers were stiff and my hands were shaking. Messing up when you're alone is one thing, but if I loused this up, I'd be sleeping on the couch for a month. It was the hen that had me worried, because she was in front and seemed more alert than the gobblers.

Eileen was behind a screen of grapevines, and I hadn't looked at her for fear the birds would see me. But when I

glanced up, I noticed she wasn't looking in the direction of the four gobblers. It turns out that another gobbler was below her. Just as I spotted him he went into full strut, and when he stretched out his neck to gobble, Eileen pulled the trigger. Eileen's first gobbler turned out to be bigger than any I had ever taken. It was 23 pounds and had an 11-inch beard. Sometimes spring gobbler hunting can be tough, sometimes it's easy, but regardless, it's always exciting. □



OT Oughten '99



DAVE LEROY, DU Regional Director; Jim Beal, DU Oil Creek Chapter; Neal Parker, USDA, Natural Resource Conservation Service; Larry Puleo, DU Oil Creek Chapter; Steve Jung, DU District Chairman; Joe Echenoz, DU Oil Creek Chapter; Jim Deniker, PGC Land Management Group Supervisor; and Keith Harbaugh, PGC Northwest Region Land Management Supervisor were all on hand for the dedication of the restored wetland on SGL 39 in Venango County.

Just Ducky

By Jim Deniker

PGC Land Management Group Supervisor

TWO WETLAND restoration projects have been completed in the Northwest Region. One is on SGL 39, on a 700-acre tract the agency received from the Pennsylvania Department of Agriculture in 1992. In 1995, construction of dikes and channels was completed. The many islands and channels built into the wetlands added good diversity of water depth and habitat.

In 1996, burr reed, cotton grass, 3-way sedge, Canada rush, clover, sunflower, wildlife mix, button bush, evergreens and willows were planted. A local farmer cultivates 74 acres of the area on a share basis.

In 1997 we planted millet, wildlife mix, a warm season grass mix and buttonbush. In 1998 we planted warm

season grasses and sorghum. In 1998, 30 percent of the 26 wood duck boxes on the area were used by ducks. There is a large variety of birds and mammals using the area. The main dike with control structure is 2,600 feet long. There is also a 300-foot



THROUGH a cooperative, long-term project, 35 acres of wetlands were restored on SGL 39 in Venango County. The wetland is already being used by a wide variety of birds and mammals.



MIKE COLGAN, PGC Game Lands Maintenance Supervisor; Keith Harbaugh, PGC Northwest Region Land Management Supervisor; Jim Deniker, PGC Land Management Group Supervisor; Dave LuRay, DU Regional Director; and Kerry Prince, USDA Natural Resource Conservation Service stand with new sign showing wetlands restoration project on SGL 294.

dike that we use to allow water to fluctuate as the season dictates. This was a cooperative project between the PGC, USFWS, Venango County Conservation District and Ducks Unlimited. Through this joint effort, we restored more than 35 acres of wetlands.

The second project was on SGL 294. Construction was completed in 1994. Water in this new wetland ranges up to six feet in depth, which, along with the many islands and channels constructed, provides a wide variety of habitats.

There are two dikes in this wetlands; one is 1,600 feet long and the other is 100 feet long. Each has its own water control device. During a 1996 study of summer bird use, 46 species of birds were found to be using the wetland area.



SGL 294, with its many constructed islands and channels, provides a wide variety of habitat diversity. In 1996, 46 species of birds were found using this wetland.

Through this joint effort with the USFWS, Natural Resource Conservation Service and Ducks Unlimited, we restored more than 60 acres of wetlands. □



There's something about the mournful cry of a hound on the trail of a coon that gets the adrenaline flowing — and not just with the dogs.

Night Chases

By Ernest Aharrah

STARS FILLED the night sky and a warm breeze rustled the emerging leaves. On this May night the fragrance of moist woodlands perfumed the air and the normal racket of mankind was vanquished by the remoteness. We were going coon hunting. Although the season for taking raccoons was closed, we just wanted to enjoy the comradery and listen to the hound music.

The hounds had sensed they were going hunting. We would be hunting

with a bluetick, a Walker and a redbone, all from excellent lineage with superb training. The bluetick and the Walker were young dogs, the redbone a seasoned veteran.

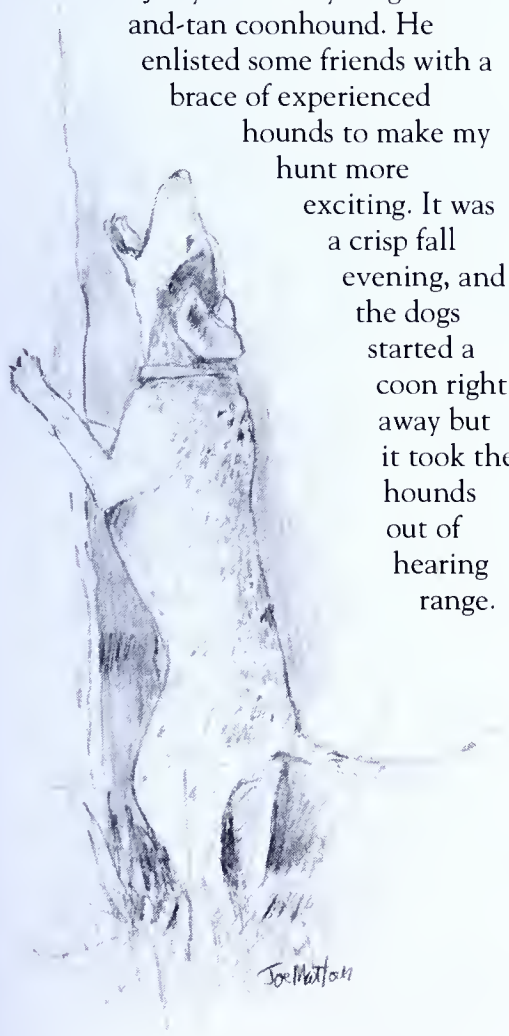
As soon as we began releasing the dogs, the bluetick turned her head and bayed before the chain was unsnapped from her collar. She raced to a tree less than 50 yards away and barked "tree." That quick reaction had the other dogs and hunters momentarily baffled, but soon all three dogs were celebrating

"coon up a tree." Hound music filled the night air. How beautiful the sound. Despite the sprouting leaves we soon spotted the coon. Our quarry cooperated by glancing at the light, enabling us to easily pick up its shining eyes.

I was the guest of the Allegheny Mountain Night Hunters of Pittsfield in Warren County. The club has about 35 members, and no one is sure how many dogs are involved. These men are devoted coon hunters.

As we started off in search of another trail, I recalled my first coon hunt. It was during my college days. A friend, Jerry, came to a night class in his hunting duds. He was going coon hunting after class. I orchestrated an invitation for a hunt at a later date.

Jerry owned a young black-and-tan coonhound. He enlisted some friends with a brace of experienced hounds to make my hunt more exciting. It was a crisp fall evening, and the dogs started a coon right away but it took the hounds out of hearing range.



We started a fire and waited. After a long chase we heard them returning, still hot on the trail. We expected them to tree at anytime, but apparently the wise old coon elected to swim the river, giving the hounds the slip. When the hounds returned, we doused the fire and called it a night. That fire had been welcomed. Neither a fire nor a wait was required on my Warren County hunt.

Hound music snapped me out of my reverie. The dogs had struck a coon track a long way off. Fortunately, the coon was heading in our general direction. I listened intently to the dogs as my hosts tried to each identify the voice of his own particular hound. They were also guessing where the coon might tree.

"He's heading up into the clearcut," suggested one voice from the dark. Another mused, "Maybe he won't get in far." That statement proved prophetic, because we had gone less than a hundred yards through the brambles and fallen trees when we reached a big hemlock where the coon had treed. This coon was not as accommodating as the first. Only sharp eyes enhanced by experience allowed the night hunters to spy the ringed tail hanging from a limb.

Not all of my earlier coon hunts had been this easy. My brother's father-in-law had a small short-legged terrier that hunted squirrels during the day and coons at night. Tommy was not a trail dog. He only barked at a coon in a tree, usually a great distance from where the hunters waited. It seemed that dog could tree coons in at least two counties on the same hunt. I never did understand how such a short-legged dog could travel so far in such a short amount of time.

DOG TRAINING REGULATIONS

There is no closed season for training dogs.

A hunting or furtaker license is not required for dog training.

Dogs may not be trained on private land on Sunday without the landowner's permission.

A person may not carry a rifle, shotgun, or bow and arrows while training dogs.

Dogs are not permitted to injure or kill wildlife.

Owners are liable for any wildlife killed or injured by dogs they are training.

The members of the Allegheny Mountain Night Hunters run their dogs two or three nights each week, 52 weeks a year. Buddy hunts are scheduled every two weeks. At least twice each year, sanctioned hunts are held, when houndsmen from all over the East converge on the Brokenstraw Fish and Game Club grounds to run their hounds in the competition.

The fact that a youngster, Scott, was with us this night was also typical of the Night Hunters. The club sponsors a conservation camp each summer, and one of the highlights of the program is a coon hunt. Groups of two or three youngsters accompany groups of adults with their dogs.

My hosts also accommodate hunts for other youth groups, such as 4-H, Boy Scout and Girl Scout troops. If giving kids a chance to enjoy the hunt assures the vigor of the sport, and I feel it does, these hunters are ensuring vitality of coon hunting. They instill wholesome values and provide role models for these youngsters.

As we returned to our pickup trucks and moved a short distance for the final hunt, I remembered earlier years when my brother and I hunted raccoons with his dogs. Poodlax was of dubious ancestry. When he showed up at my brother's home my brother adopted him. Whatever his ancestry, he could hunt coons.

My brother also owned a little wirehaired terrier named Penny. That feisty

little mutt would catch a coon on the ground. If no one came to her assistance, I believe she would have held on until either she or the coon died. Those two dogs made hunting interesting.

Shortly after we parked our vehicles by a pasture gate, the dogs struck the third trail of the evening. After running east toward the road, the chase led back to their starting point. Their voices picked up volume as they headed in the opposite direction.

"That's Tip first on the tree isn't it, Dad?" Scott said. His dad agreed. Soon the other dogs joined Tip, and we hurried downhill along the face of the slope. We found the dogs, but it took considerable effort to spot the coon in a big sugar maple. The hunters secured their dogs. We had treed three coons in little more than an hour, so we called it a night and headed for the clubhouse.

As I bid my hosts farewell, the stars still sparkled in the cloudless sky. I returned to my room at the Holiday Inn in Warren but, although tired from a long day, sleep was slow in coming. It's hard to sleep when you're still chasing coons and following hounds in your mind. □



A Season of Sad Stories

By Richard Tate

I WAS BRIMMING with confidence. By the time the '97 spring gobbler season arrived, Dad and I had located more gobblers than in any previous spring. Many were mature toms, the kind that make any hunter's blood boil. In addition, the year before I had called three gobblers to the gun — for my son, for my dad and for myself — and I was confident I could do it again. Luckily, I did not crow about this confidence prior to the season.

On the first morning Dad and I decided to hunt an area where we had heard several gobblers the Saturday before. To our knowledge, no other hunters had been

scouting this area, although it was not a long walk from a road. At daybreak, a gobbler thundered from his roost. Dad decided to stay put while I ascended the ridge to the same bench the gobbler was on. That way we would have a couple of areas covered. After setting up at the base of a large oak I called softly. The tom immediately answered, so I figured we were in business. As the morning grew brighter, I could see the gobbler on his perch less than 70 yards away. I decided not to call again until he had left his roost.

He must have gobbled a hundred

times before he flew down, but I managed to remain patient. When he hopped off his limb onto the bank, he disappeared behind a patch of laurel. I called to him immediately but got no response. Even so, I was confident he would come my way, but after 10 minutes of silence, I realized the bird had another plan. Finally, he hollered again, this time from below me, probably less than 40 yards away, but down over a little bank where I could not see him. However, he was moving towards Dad, and I expected to hear a shot at any minute. It just didn't happen. After the gobbler had gobbled his way on out the ridge and had finally shut up, I descended to where Dad was sitting. "Why didn't you shoot? He was a big gobbler."

"I couldn't see him," Dad replied. "He was just over that little bank. I thought about standing up, but I thought he would spot me, so I didn't. But I wish now that I would have."

"No, you did the right thing. He would have seen you and would have taken off before you would have been able to shoot. Besides, the morning isn't over yet. We'll try to stir him up again. Put on your orange hat and we'll walk out the ridge. Maybe we can get him going."

But, sad story number one was over. The gobbler, and others in the area, never made another sound that morning, and by 11 o'clock we admitted defeat and headed home. Despite this setback, I still believed that the gobbler season would be a successful one.

The following Monday I took one of my two personal leave days, so that I could again hunt an entire morning. Dad was going to hunt one area, and I

decided to hunt a completely different ridge, again one where we had heard gobblers prior to the season. I was in the woods long before daylight, set up against a large oak. I figured that the gobblers we heard before the season would be nearby. But an hour later, yet to hear a peep and disappointed, I decided I was going to have to "walk and talk." Over the next couple of hours I did just that, but the only thing I heard calling was another hunter. Needless to say, I didn't hang around long.

At 9:30, I sat down to have a cup of coffee. I had just poured it when I heard a far off gobble. I poured the coffee back into the thermos, put my orange hat on and hustled off toward the gobbler.

I set up three times before the gobbler finally headed my way, but once committed, he practically ran towards me. I got pretty excited when I saw him coming 70 yards away. He was a majestic bird with a long, thick rope of a beard, and the sun glistened off his shiny, black feathers. As he approached, his head reminded me of a baseball bobbing through the woods.

He gobbled his way in, and I responded with soft yelps after every gobble. I had my bead on him at 50 yards, figuring I was less than a minute from downing my trophy. But then, suddenly, from an embankment directly behind me, a thunderous gobble exploded. The gobbler I was planning to shoot skidded to an immediate halt. The tom behind me hollered again, and the one in front of my gun made an abrupt turn to his left. He was coming no farther. I knew the tom behind me was king of the hill, even though the one in front was a trophy bird. When the bird out in front disappeared into a little gully, I decided to get ready for the bird behind me.

Now, I've been hunting gobblers for 15 years, and have killed several good ones,

*Dad and I kept
after the turkeys,
and we heard at
least one gobbler
every time we
were out.*

so you'd think I'd be capable of making rational decisions. Then, why did I, in an open woods, swivel around to the other side of the tree I was sitting against? Why didn't I wait for the gobbler to come down off the bank? You tell me. The result of my movement was predictable. The gobbler on the bank raced uphill, crashing his way through a maze of grapevines. My poor decision had kept him out of the roaster, and his challenge had kept the first tom from catching a load of number 6s. I was not happy.

Dad and I kept after the birds, and we heard at least one gobbler every time we were out. However, as the season progressed, we had yet to get a bird. Even more discouraging, it seemed as though we were the only hunters who had not connected. Often the gobblers came to within 60 or 70 yards, but would hang up. I had a close call on another morning, but the gobbler strolled off to a hollow where he had been hanging out before the season. After that episode, I plotted his demise by having Dad set up on the bank of the hollow where the tom had spent the bulk of the pre-season. I would call from the opposite bank, giving Dad a chance to get him if he played his usual game of gobbling and walking back and forth on the bank.

At dawn a couple of mornings later, we tried the plan. "If he doesn't strut past you by 8 o'clock, it probably isn't going to happen," I told Dad. "You may as well come get me, and we'll go somewhere else." Things began as expected. The gobbler gobbled enthusiastically

DISCOURAGED, I stood up to gather my gear when 20 yards away three or four turkeys lifted off the bank behind me.

while on the roost. I called sparingly, letting him know a "hen" was in the vicinity. But, I didn't want to call too much and have the tom hang up on the roost. Finally, when I heard him fly down, I began to call, hoping he would continue gobbling while strutting. The tom, unlike on any of our previous encounters, did not gobble after he had left his tree. I called softly for a while, then increased the amount and the volume of my calling, once even trying to sound like a couple of turkeys fighting. The gobbler was having none of it. Finally, about 10 minutes after eight, I spotted Dad heading my way. I knew the plan had been a flop.

"No, actually, it almost worked out," Dad said. "Though he never answered, he was strutting around. Later, when I stood up to get my cushion and to put on my orange hat, the gobbler flew down the hollow. He had been only about 30 yards away from me, standing behind a fallen tree. From where he started gobbling, it seems like he had been easing my way. If we had waited 10 minutes longer, I would have had a good shot. He's a lucky bird."



Again, a gobbler had bested us. But, on the fourth Saturday of the season, a huge gobbler we had not been having any luck with made what we considered a grave error. We had spotted him in an open mountain field, and despite spooking him, I told Dad that I thought he was vulnerable.

We had heard him gobbling near this field on several occasions, and I thought that if Dad set up there each morning of the following week, and placed a decoy along the border of the field, he could call the bird in. It didn't work. The gobbler never reappeared in the field. In fact, Dad did not hear him gobble on any of the mornings he spent there. A hen came to check out the decoy one morning, and a couple of curious deer even came close enough to sniff at it. But the big tom had apparently left the area.

It came down to the last Saturday. But when I came in from my Friday night scouting trip, I was again brimming with confidence. I had roosted a gobbler and several hens, actually watching them leave a field just before dark. The gobbler had gobbled furiously at some noisy crows before settling in for the night, and I figured if we placed the decoy in the field, the gobbler and his hens would investigate the newcomer. "Heck, we will hardly even have to call," I told Dad. "We might just kill a gobbler on the last day of the season."

We were set up long before daylight. We placed the decoy in the field, about midway between the trees where we had chosen to sit. If the gobbler came to the decoy from the left, Dad would have a good shot. If he came from the right, I would have him covered.

At daybreak the hens began to cluck and yelp from the trees behind me in the woods. I didn't make a sound. I thought they would get the

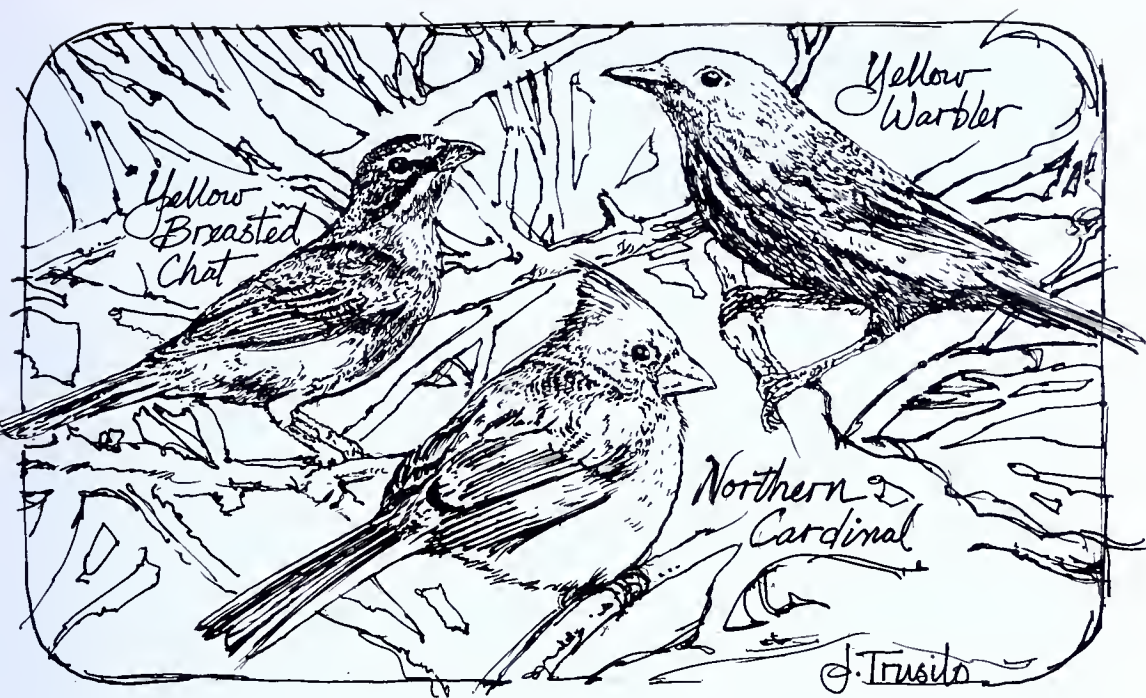
tom stirred up and drag him into the field. Not long after the hens started up, the gobbler hollered out his greeting to the morning. Things were working out well. As the morning brightened, I heard the turkeys fly down, but they forced an immediate strategy change. They continued to talk to each other as they headed into a hollow behind us, directly away from the decoy and our set up. I knew I was going to have to call them back, if I could.

I began with a long series of yelps that the hens answered — somewhat nastily, I thought. I hoped they thought I was a new hen intent on stealing their gobbler. I again let them have it, and they responded in kind. They were coming back up out of the hollow, and the lusty gobblers of the tom indicated he was, too. We kept this up for a couple of minutes. Suddenly, I heard the frantic beating of turkey wings, like they were taking off. Something had frightened them. I continued to call for the next 15 minutes, but it was apparent that the birds were gone, for they never made another peep. Discouraged, I stood up to gather my gear and don my orange cap. Twenty yards away, three or four turkeys lifted off the bank behind me.

They had not flown away when I had first heard the flapping of wings, but they sure did now. At any rate, the game was over. Why the turkeys had shut up and had flapped their wings is something I'll never know, but my standing up had certainly frightened them away. The last day gobbler had eluded us.

By this time I had almost gotten used to having my plans backfire, and when I told Dad what had happened, he chuckled. "It's almost the opposite of what happened the first day when I chose not to stand up to try to see that bird. It certainly has been a season of sad stories for us."

Indeed it had been. We had been close to gobblers on many occasions, but for many reasons had been unable to get a shot at one. But, that's turkey hunting, and that's why it's so much fun. □



Helping Shrub & Edge Birds

By William M. Giuliano, Ph.D. and Kathleen K. Fleming
California University of Pennsylvania

SONG SPARROWS, chipping sparrows, yellow-breasted chats, and many other birds associated with shrub and edge habitats have been declining in Pennsylvania over the last 30 years. And many other species use these habitats for foraging and escape cover.

An important factor contributing to these declining populations has been the change in land-use practices. Loss of shrub and edge habitats through farm abandonment and urbanization, and the degradation of edge habitats through clean farming practices, appear to be the leading causes of the declines in these birds. Be-

cause landowners try to maximize production from their lands, they mow or graze pastures, and plant crops right up to woodland edges. This eliminates shrubs, creating an abrupt edge between field and woodland, which is of little value to birds and other wildlife.

For more than 60 years now, at no cost to landowners enrolled in public access programs, the Game Commission has been implementing a border cut program on hundreds of private farms within the commonwealth. This program consists of cutting down trees within 10 to 50 yards of field/wood-

land edges, promoting shrub communities within a "soft" edge, or transition zone between woodlands and fields in agricultural areas. Within border cuts, useful trees for wildlife, such as apple and other fruit and mast producers, should not be cut. In addition to improved wildlife habitat, landowners benefit from this program by obtaining firewood, increased crop production and, due to less shading, improved drying of fields in spring. Originally implemented to improve habitat for rabbits, pheasants and quail, the program significantly improves habitat for many nongame animals, too.

Over the last three years, researchers from California University of Pennsylvania and the Game Commission have been examining the importance of border cuts to nongame birds. Border cuts were found to support 40 percent more birds than uncut edges, with many declining shrub and edge-associated species showing a preference for these cut edges. Besides the species mentioned at the beginning of this article, other birds found more often in cut edges included blue-

winged warblers and common yellowthroats. Several species, including eastern phoebes, willow flycatchers, brown thrashers, northern mockingbirds, eastern bluebirds, cedar waxwings, magnolia warblers, hooded warblers, chipping sparrows and grasshopper sparrows were found only

in border cuts. Overall, 58 percent of the bird species using cut edges were edge and shrub associated species, while uncut edges contained only 36 percent of such birds.

The preference of border cuts for shrub and edge-associated birds seems to be due to the increased food and cover provided by a shrub layer. The shrubs in cut edges provide birds with greater

horizontal and vertical

cover, which offers protection from predators and also produces seeds and draws insects for food. Uncut edges typically contain taller trees without a shrub understory. Hawks and owls commonly perch along these edges and have easy access to songbirds and game birds using these shrubless areas. Mammalian predators also have increased access to birds and nests in uncut edges. The solution is simple: Give birds the edge; create an edge with a border cut. □

Border cuts were found to support 40 percent more birds than uncut edges, with many declining shrub and edge associated species showing a preference for these cut edges.

COVER PAINTING BY GERALD PUTT

THE LONG AWAITED spring gobbler season opens this month and nearly 240,000 nimrods will be out and about in search of a longbeard like either of the two depicted on this month's cover. Bagging a mature tom is the culmination of good planning, preparation and woodsmanship. (A little luck doesn't hurt, either.) Thanks to an aggressive management program, hunters here enjoy some fabulous sport. Through an intensive trap and transfer program, huntable populations of wild turkeys can now be found in areas where they were nonexistent just a few years ago. Once afield, think hunting safety at all times. And please, don't forget to wear 100 square inches of fluorescent orange when moving; it's the law.

Smokepoles

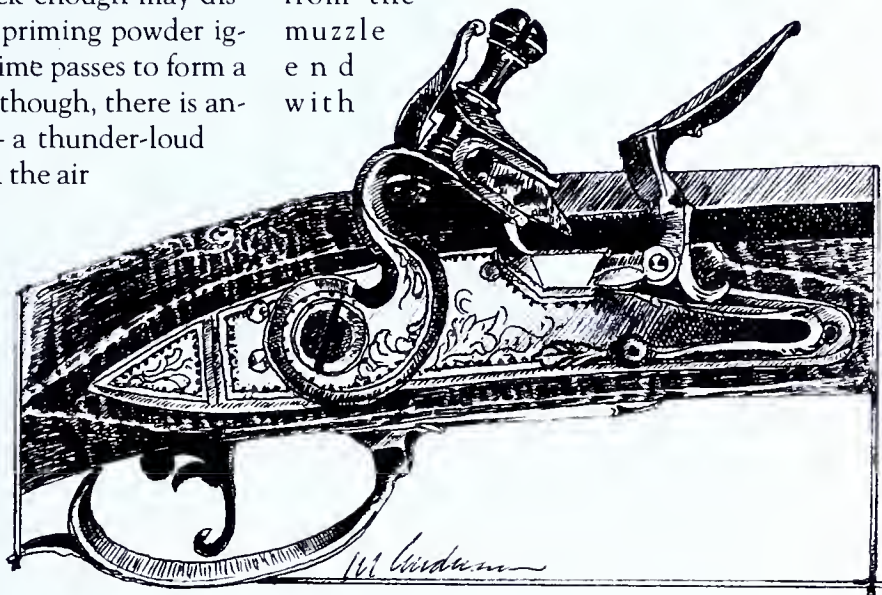
NOTHING CAPTURES the essence of hunting quite like the roar of a flintlock muzzleloader in the forest. To witness a hunter take game with a muzzleloader is to involve oneself in a grand spectacle of drama. Every sense is stimulated in the split second it takes for a shot to reach its mark. Eyes first catch the falling lock and a small, bright shower of sparks. Then ears quick enough may discern a whoosh as the priming powder ignites. Before enough time passes to form a distinguishable sound though, there is another, louder noise — a thunder-loud eruption. The shock in the air

is massive enough to be felt on exposed skin five feet away, an instant of sudden pressure, gone before it really begins. Instinct screams to shut the eyes, but those who resist may gaze upon a ball of fire leaping forth momentarily from the rifle. Then there

is smoke. A thick gray and white cloud encases the rifleman. Olfactory nerves and tastebuds cry out as sulphur makes a brief assault. Ears ring in memory of the shot, while eyes probe the billowing smoke between the hunter and his target. Eventually, the cloud is gone and the result of the

shooting can be seen.

Muzzleloaders have been in existence since the late 14th century, when European armies began to arm themselves with handheld cannons. Crude and inaccurate as they might have been, these portable firearms changed the face of Europe and the course of history. A long heavy barrel was loaded from the muzzle end with



a charge of coarse gunpowder, followed by a patch of cloth and a metal projectile packed tight. A burning rope, called a match, was then lowered by hand into a priming vent on top of the barrel. There were no sights on the first handheld firearms, because the shooter

By Gerald Zeidler Jr.

had to watch the match and guide it into the priming vent.

About 1450 A.D., Italian smiths created the first matchlock guns. A S-shaped lever was mounted on the barrel. At one end was the smouldering match. The other end was pulled back, pivoting the match down into the priming vent. While this allowed the shooter to pay more attention to his target, the touchholes were still being made on top of the barrels, hindering the shooter from accurately lining up the barrel.

It wasn't long before the matchlock was modified to correct this shortcoming. European gunmakers began attaching a priming pan to the side of the barrel to contain finer priming powder to be ignited by the match. This allowed room for sights to be fashioned onto the top of the barrel. The priming vent, called a flashhole or touchhole, was made smaller to avoid losing powder from the main charge. The S-lever was soon replaced by spring-powered, trigger-operated locks, allowing the shooter better control over the timing of a shot. Designed in the early 1500s, this style of firearm proved efficient enough to be used by Japanese riflemen into the 19th century.

As time passed, other ignition mechanisms were devised, such as the wheel lock. When the shooter pulled the trigger, a wound coil inside a wheel-shaped lock was released, spinning the wheel against a chunk of pyrite set in a hammer just above the

priming pan. The resulting stream of sparks lit the charge. Despite being quite expensive, this system was in wide use by the 1520s. There were many problems, however, because the wheel lock was complex and fragile.

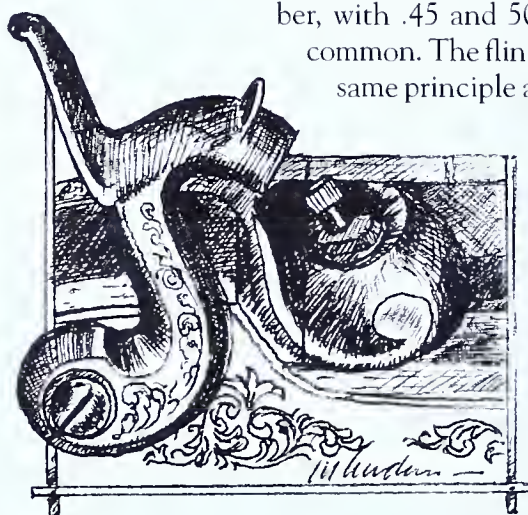
French gunsmiths, seeking a sturdier and more dependable firearm, developed the flintlock in the late 16th century. Flintlocks were produced in a wide variety of sizes and styles, ranging from .28 to 80 caliber, with .45 and 50 caliber being most common. The flintlock operated on the same principle as the wheel lock, except a flint-edged

cock was released with the pull of the trigger, striking a steel plate called a frizzen to produce sparks. The frizzen doubled as a hinged pan cover, keeping the priming powder in

place against the flashhole and protecting it from moisture until firing.

Tough, accurate and reliable, the flintlock was exceptionally popular with American colonists. Native Americans were keen on the power of flintlock firearms as well. Colonial documents show records of Mohawk tribesmen trading as many as 40 beaver pelts for a single rifle. Some geographical areas were centers of gun crafting, and many produced a particular style. One example is the Pennsylvania rifle, a flintlock with an unusually long stock and barrel.

Despite its protective pan cover, the most common problem with the flintlock was damp priming powder. Being such a fine grade of gunpowder, priming powder readily absorbs moisture from any available source, including air. Frontiersmen often relied upon their rifles for survival, and are responsible for the saying, "Keep your pow-



der dry.” This problem led to the invention of the percussion lock around the beginning of the 19th century. Shooters of percussion lock firearms slipped a small cap, packed with priming powder, over a metal nipple on the firing mechanism. Once cocked, a strong spring enabled the hammer to strike the priming cap with enough force to create a tiny explosion on the nipple. The resulting miniature flame was channeled into the touchhole and the awaiting main charge.

Although muzzleloaders were made obsolete with the invention of the metallic cartridge, the tradition of hunting with them lives on. Muzzleloaders can be used during traditional hunting seasons in Pennsylvania and, of course, there is the season

exclusively for hunting deer with a flintlock rifle. Check the *Pennsylvania Hunting & Trapping Digest* for regulations and season dates.

If you’ve never fired a muzzleloader, you’re missing out on some exciting shooting. Many books are available on the topic at libraries and bookstores. Before acquiring and firing a muzzleloader, be sure to receive some expert instruction on safe handling, loading and firing procedures. As with any firearm, muzzleloaders can be extremely dangerous if mishandled. Once you’ve learned the proper methods, spend a lot of time on a range. Learn for yourself how these firearms earned the name “smokepole.” □

TURKEY HUNTING SAFETY TIPS

The primary cause of turkey hunting mishaps is hunters not properly identifying their targets before shooting. Whether it’s the excitement of the hunt or just poor judgement, these mistakes have caused injury, and in some cases, death to human beings. After evaluating all aspects of this problem, the Game Commission broadened fluorescent orange safety regulations to include turkey hunting. Since then incidents — particularly those involving hunters being shot in mistake for turkeys — have declined. However, there is still room for improvement, because even one incident is one too many. Make turkey hunting even safer by following these tips:

Positively identify your target before pulling the trigger.

Make your position known to other hunters.

Never stalk a turkey or turkey sound.

Assume every noise and movement is another hunter.

While calling select a natural barrier to protect your back.

Shout “Stop” to alert approaching hunters.

Eliminate red, white, blue and black from your clothing.

Preselect a zone of fire.

Never carry decoys through the woods in your hands; use a vest or bag.

While fluorescent orange is not required at stationary calling locations, it’s strongly recommended. While moving, hunters are required to wear at least 100 square inches visible 360 degrees.

Reminder: Only one turkey may be taken during the spring season; disregard the second tag with this year’s license.



Greedy Gobbler

By Edgar W. Bullock

I REMEMBER one of my readers in school, back in 1924, containing Aesop's Fables — stories about animals that taught moral lessons. A hunt for a Sullivan County gobbler got me thinking about Aesop's Fables. If the bird could have talked, I think his message would have been, "Don't be greedy." Here's what happened.

I have had some success calling turkeys, but have taken only hens in the fall. I have called in several gobblers in the spring, but had something go wrong each time. I won't elaborate on those instances except to say that sometimes the gobbler saw something it didn't like, or I failed to do my part.

In 1996, armed with a new Remington 870 12-gauge chambered for 3-inch magnums, I traveled to my camp for the spring opener. I didn't have time to scout in the area prior to opening day, so I didn't have a gobbler located. I decided to hunt at the foot of the ridge, where in previous years I had worked gobblers. I set my decoy, "Jezebel," on a little hump near the edge of the woods where a gobbler coming from the ridge should immediately see it. There was just enough breeze to make it wiggle a little but not spin. Next, I wrapped my orange band around a tree, placed my orange hat on a rock behind me then sat down behind a downed tree 20 yards from the decoy.

It was now legal shooting time, and all I needed was a gobbler to cooperate. After hearing nothing but a couple of woodpeckers, I gave a few lonesome yelps. Nothing responded from the ridge, but from down the other side of an old railroad bed came a gobble that sounded too far off to be a response to my call. I tried again and again to get a response, but to no avail. I waited a few minutes and tried once more. That time the response was closer, but still a long way off. A few minutes later he responded again and was even closer. It sounded as if he had crossed the old railroad bed. No more responses to my calls but suddenly, close behind me, came a soft gobble. He was so close that I could hear small twigs snap as he moved about. I couldn't believe how fast he had cut the distance from when he last responded down below the railroad bed. All I could do was sit tight and hope he would move past after spotting the decoy. He gobbled again, very softly, when a resounding gobble seemed to shake the trees. The soft-spoken guy behind me said no more. He was probably a jake who may have received a good thumpin' on a previous occasion from the boss bird.

My attention went to the area where the loud gobble came from. A large gobbler and four hens were emerging from a hedgerow about 200 yards across an open field. The gobbler had become silent but was strutting and showing off for my decoy. He obviously could see it, and was sure she could see what a grand fellow he was, too. About halfway across the field the four hens decided not to wait for the tom. They proceeded on across the field at a much faster pace. Oh, no, I thought. I didn't need four pairs of sharp eyes around me. I adjusted the gun on the log, so I wouldn't have to move much and hoped for the best. I wondered if they would figure out that Jezebel was only a hunk of plastic on a stick, or see me and give the alarm before the



boss moved close enough for a shot.

The hens spread out a little and only one came directly towards me. She stopped just inside the woods. The gobbler was coming along slowly, too, strutting every step of the way. It seemed like a long time but he eventually came into the woods, stopped and put on a grand display. It impressed me, but Jezebel just sat on her wooden leg and wiggled. I lined up the shotgun bead on the gobbler's head and fired. Hens flew, the gobbler behind me flew over my head and joined them, or at least flew in the same direction. He probably inherited a harem of hens, but the greedy boss who wanted all the hens was now piled up on the edge of the woods. I hustled over to the downed turkey, and can remember thinking what a beautiful bird it was. I said a prayer of thanks, tagged the bird, put my orange cap back on and started back to camp.

The gobbler weighed exactly 20 pounds, sported a 9-inch beard and had spurs over an inch long. My first spring gobbler was well worth waiting for. What's the lesson to be learned here? The gobbler couldn't stand another tom being around his "new" hen. His greed had cost him in the end. □

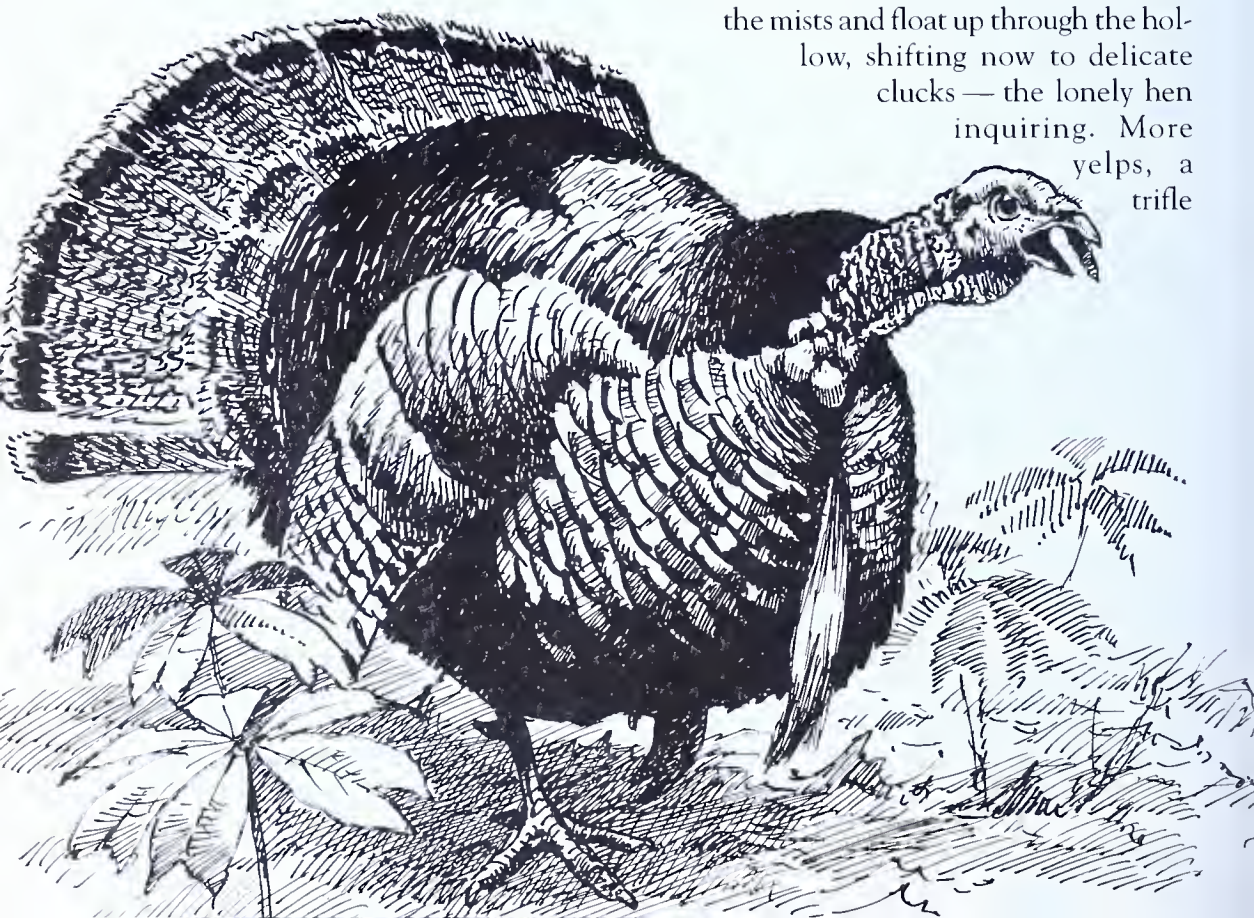
SPRING ANTHEM

THE TOWERING sandstone escarpment on the ridgeline has the shape of a deer's jawbone. A turkey hunter, bent with age, eases silently down through a narrow gap between two huge teeth of the jaw and onto a little flat. He sits against a tree to listen, but it is hard to hear beyond the bagpipe groans from his beleaguered lungs. Below, the deep hollow brims with fog so dense that it seems no sound, or any creature, could rise up through it. The hunter knows that somewhere in those pale fathoms is a wild turkey gobbler. While catching his breath and staring into the void, part of a little song his daughter learned in nursery school many years ago runs through his mind. He can hear her child's voice singing: "Spread your wings, Mr. Turkey, Stretch your neck high and tall, Talk to me, Mr. Turkey, Tell me anything at all."

He fishes in a vest pocket for the slate call he made. He could make or fix just about anything. His gun, a single-shot, hammerless 16-gauge, was salvaged from a mountainous scrap pile at the steel mill years before the first spring gobbler season. The barrel wasn't dented and the action still tight, with traces of case hardening. All it needed was a new butt stock, and who couldn't whittle a new stock? He shaped one from a blank of fancy walnut, sanded it until it was smooth as glass then made a forend to match. Coat after coat of linseed oil was rubbed into the thirsty grain and the figuring came alive, rippling like shadows on a streambed.

Oh my, how he loved to call turkeys. That was the fun part. You could keep all that walking. Let the turkeys walk, he thought. The peg strikes the slate at a precise angle, exact pressure applied and released on the sweet spot. He works the call with feeling, the way a practiced violinist bows the music up from the heart and through the strings. No stiff, mechanical yelps these, but the wild, resonant tones of the hen herself. Again

and again, lovely yelps cascade down into the mists and float up through the hollow, shifting now to delicate clucks — the lonely hen inquiring. More yelps, a trifle



urgent this time. "Talk to me Mr. Turkey," his daughter's voice sings. "Tell me anything at all," whispers the hunter.

Across the steep hollow, a gobbler walks anxiously up and down the bough of a white pine. Soon after he roosted at dusk, clouds muscled into the valley, bringing a cold drizzle and fog. Within the gobbler a flame burns, and at the sound of the yelps that fire leaps and he gobbles mightily. He pitches out of the pine, gliding through the hardwoods and lights on the opposing hillside. While standing on tiptoes he flaps his great, barred wings then folds them behind his back.

The hunter unclips a ballpoint pen from his shirt pocket. He takes the pen apart, holds the point in his mouth, moistening it, and puts the rest back in his pocket. He uses it like a wingbone yelper, with hands cupped in front, one restricting air, the other directing sound. The yelps are clear and high-pitched at first, then with a slight shifting of his hands, become the raspy yelps of another bird. The gobbler shouts back three times.

Back and forth, gobbles following yelps, sometimes overlapping. The gobbler waits for the hens, the hunter for the gobbler. Then, long minutes of silence. A sudden throaty cackle demands attention, and the gobbler takes the initiative. He walks directly uphill, then swings around a big patch of laurel, heading for the flat where the hens are. The hunter readies himself, face mask up, gun in position.

At first it was only a distant rumble, but now the loud clattering, clanking and screeching of a freight train roars up from the valley and into the hollow that holds the sound like an amphitheater. This may complicate things, the hunter thinks, depending on how fast the turkey is coming in, and how long the train is. Soft clucks, should he need to make them, will be useless.

The flat disc of the sun emerges through veils of scudding clouds. There, out to the left, he spots the dark form of the longbeard closing. Fifty yards out, then half that. The black bird steps behind a tree and comes out the other side transformed, in full strut, feathers shining like a thousand new pennies in the sun. His red, white and blue head is tucked way in — a shot never to be taken.

The hunter's heart hammers in time to the click and clack of the train, and strangely, at this critical moment, he thinks how the days of his long life are like the cars of that speeding train, countless images all coupled together, rushing on from this beloved valley to who knows what or where. The gun wavers slightly in his hands, and against his will, his eyes well. The last car passes, and in the sudden silence he hears the spit and drum of the strutting gobbler and his own ragged breaths and the fading echo of his little girl's voice, "Stretch your neck high and tall, Talk to me Mr. Turkey, Tell me anything at all." The gobble is deafening at 10 yards. Alerted by the hunter's wheezing, the turkey's head erects, and in the next instant collapses at the shot.

Standing over the bird, the hunter reassembles the pen and fills out his tag. Turkey in tow, he hikes back up through the space between the boulders, humming his anthem, happy to be alive on this spring morning. As all turkey hunters are.

PENN'S WOODS

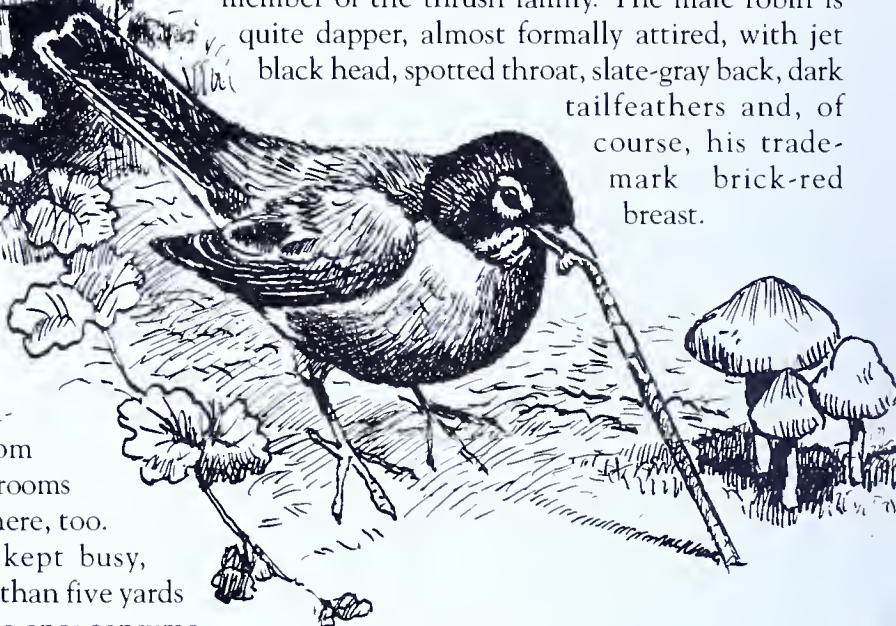
SKETCHBOOK

BOB SOPCHICK



NO SONG has a greater sense of well-being than that of a robin after a warm spring rain — worm hunting is easier then. Because they are common familiar birds, we tend to overlook this handsome member of the thrush family. The male robin is quite dapper, almost formally attired, with jet black head, spotted throat, slate-gray back, dark tailfeathers and, of course, his trademark brick-red breast.

PICKINGS are easy for robins after many days of rain, with earthworms flooded from their burrows. Mushrooms popping up everywhere, too. Adult robins are kept busy, bringing back more than five yards of worms their young ones consume each day.



IN MANY localities, the trillium is also called the wake-robin. The flower got this name because after blooming, the head of the flower droops over, about the time that robins start singing in backyards. There are many species of trillium, with the most familiar being the large white trillium, the namesake of author John Burrough's famous book, *Wake-Robin*. The ill-scented red trillium is also known as the wet-dog trillium, nosebleed, red Benjamin, birthroot, toadshade and stinking Willie.





ANOTHER thrush, the wood thrush, is the champion songster of the forest. This wood thrush is gathering soggy leaves to build a nest. Along with other wet materials, they will dry into a lightweight, sturdy cup. Jack-in-the-pulpits sprout in the rich humus of a moss covered log.

WATCHING spring warblers is pleasant and quite mesmerizing. These tiny, lively birds with their bold graphics and beautiful colors rival the great hawk migrations of autumn for excitement. The best way to watch spring warblers is to find a tall, dark pine tree, (the birds show up better against a dark background) in a corridor that the birds are moving through. In one pine at the same time I saw a yellow-rumped warbler, a common yellowthroat and a black-throated blue warbler.



WILDFLOWERS and other plants are not the only things sprouting in the woodlands. Due to lengthening days that stimulate the production of hormones, the buck also sprouts a new set of antlers.





FIELD NOTES



Change of Heart

BRADFORD — During the special youth antlerless season I was there when my son and nephew got their first deer. I had reservations about this season, but as long as we teach our youngsters to be safe and ethical hunters, sportsmen will be roaming these hills for many seasons to come. The memory of the boys' hunt will last me a lifetime, too.

— WCO VERNON I. PERRY, III, MONROETON

Sword Fight

MONTGOMERY — I noticed two bucks sparring. Nothing unusual about that except that it was in February and each buck only had one antler.

— WCO BILL VROMAN, FREDERICK

Old Faithful

MONROE — Neighboring WCO Dirk Remensnyder recently transferred to Northumberland County. I would like to thank him for all the Field Note material he provided me over the last several years. I only hope he's as faithful to his new neighboring officers.

— WCO RANDY L. SHOUP, LONG POND



Popular

TRAINING SCHOOL — While manning our display at the Eastern Sports and Outdoor Show, I was amazed at the number of people who commented about how much they like *Game News*. Not only did it allow them to keep up on current happenings within the agency, but it also kept them entertained, especially the Field Notes.

— TRAINEE THOMAS D. SWIECH, HARRISBURG

What Next?

LUZERNE — Game Commission WES Tim Conway excitedly radioed LMO Zindell and me to contact a man who had made a startling discovery. While deer hunting, this man saw a creature he described as being six feet long with a long snout, about 200 pounds, gray, with a head 10 times larger than a Siberian husky's. It also had webbed feet with long claws and appeared to be twisting off trees 8 to 10 inches in diameter. The man had no desire to take me back to the location of his sighting. I quickly told LMO Zindell that because there was timber involved, this was a land management problem.

— WCO JOSEPH G. WENZEL, BEAR CREEK

Meal Ticket

WAYNE — While WCO Dan Figured and I were patrolling a rural stretch of the Delaware River, Dan said he was eager to see an eagle, so I took him to a hotspot. As we rounded a curve, we spied a mature bald eagle clenching a large sucker, perched on a rock in the middle of the river. Dan said, "It just doesn't get any better than this." I quickly replied, "Yes, it does. There's a diner up the road that serves great hamburgers and you're buying." And he did.

— WCO FRANK J. DOOLEY, TYLER HILL

This One's For You, Grandma

CAMBRIA — My grandmother passed away in January. Some of the things I remember most are us watching the birds at her feeder and how she would identify them, and her great love of the outdoors, whether it was walking along the lake or fishing with her grandchildren. My most recent memory, though, is of her asking me why I haven't written many Field Notes.

— WCO SHAWN HARSHAW, NANTY GLO



To Eat, Not To Put on Your Feet

DAUPHIN — Deputy John Flory stopped at a convenience store early one morning on his way to meet Deputy Bob Schmitt and WCOs Steve Hower and John Denchak, to go hunting. When the clerk asked why he was up so early, John replied that he was going to hunt for snowshoes. The clerk responded, “Why do you need snowshoes? There’s no snow, and besides, there aren’t any stores open this early.”

— WCO GUY HANSEN, MIDDLETOWN

Off Course

TRAINING SCHOOL — During our orienteering course we were instructed to avoid a thick clearcut. Two of my classmates, though, thought they would save some time by taking a shortcut through the tangle. After they finally got out, they realized why they were told to avoid it. The rest of us trainees got to practice our First Aid training.

— TRAINEE RICHARD E. MACKLEM,
HARRISBURG

More than Ever

HUNTINGDON — After a record 65 bears were taken here last fall, I expected the bruin sightings to be few and far between. That was not the case, however. Many deer hunters told me they saw bears, and within 24 hours I picked up two roadkilled bears at the same location.

— WCO JOHN B. ROLLER, HUNTINGDON

Full Belly or Just Lazy

HUNTINGDON — Last winter a marsh hawk had a habit of perching on my bird feeder, even when pheasants were picking up seeds directly below. The pheasants didn't seem concerned, and the hawk just looked at them.

— WCO PHIL LUKISH, ALEXANDRIA

Just Don't Get It

JEFFERSON — After apprehending a man who had jumped out of a pickup that his son was driving to shoot at our deer decoy he said, “I thought the Game Commission was supposed to be helping hunters.” After careful consideration I responded, “I am.” What is unfortunate is that some people don’t always see it that way and others never will.

— WCO ROGER A. HARTLESS, BROOKVILLE

Couldn't Manage Otherwise

BEDFORD — Last fall and winter, in addition to my own district, I was assigned to Fulton County. For some counties, this might have been an impossible task, but with the team of seven deputies in Fulton, things ran smoothly. These dedicated officers handled every incident that occurred, and they even made me look good to my supervisors in the region office.

— WCO DAN YAHNER, EVERETT



Wrong Solution

MERCER — One of our Farm Game Co-operators discovered a large quantity of trash dumped on their property. While going through the bags for evidence, we came up with not only the name of the violator, but also a note to him from his wife, telling him to do something about all the garbage.

— WCO DONALD G. CHAYBIN, GREENVILLE

Unfortunate

At Lehigh Pond vandals smashed several of our wood duck boxes and stole the metal stakes. Besides the cost of materials and installation, the loss of these nesting devices at a critical time can have a negative effect on local waterfowl populations. At 8 to 15 eggs per box, that results in many ducklings lost.

— LMO JOHN C. SHUTKUFSKI, DAMASCUS

Grave Consequences

ERIE — I was called to a cemetery to remove a skunk that had fallen into a freshly dug grave. Normally I would have placed a board into the hole and let the skunk crawl out on its own, but in this case the funeral was to take place in a half hour. Fortunately, and without the skunk spraying, I was able to remove it with a snare pole.

— WCO DARIN L. CLARK, ELGIN

Expression of Gratitude

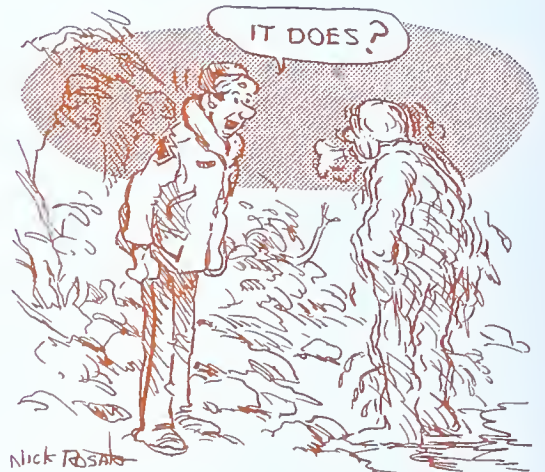
VENANGO — I recently attended the 24th annual Venango County Sportsmen/Landowner Dinner, sponsored by the Venango County Federation of Sportsmen's Clubs. It's an evening for sportsmen to show their appreciation to landowners who keep their land open to hunting. More than 300 people showed up, and the landowners in attendance represented 140,000 acres available to hunters.

— WCO LEONARD C. HRIBAR, OIL CITY

Surprised

Food and Cover crew members Gary Stevens and Bill Smith were checking a wood duck nesting box when out came eight flying squirrels. Many times these boxes are used by ducks in the spring and then by small mammals in the winter.

— LMO RICHARD J. LUPINSKY, SR., EAST SMITHFIELD



Human Bobbers

TRAINING SCHOOL — Part of our training dealt with ice safety and rescue. We put on big, orange "gumby" suits and then broke through the ice. What our instructors didn't tell us was that some of the suits leaked. I guess it was their way of keeping us awake and alert during instruction.

— TRAINEE DANIEL T. SITLER, HARRISBURG

New Arrivals

CLARION — During beaver season a local trapper accidentally caught an otter. This is not unusual for many parts of the state, but this took place in southern Clarion, which is fairly well developed. As our otter population continues to rise, these accidental catches will increase as well.

— WCO ALAN C. SCOTT, NEW BETHLEHEM

Early Arrivals

FOREST — On March 2, a sunny day between snowstorms, I saw red-winged blackbirds for the first time in 1999. They certainly brightened my day.

— WES RICHARD T. CRAMER, TIONESTA

Big Demand

BRADFORD — Food and Cover Corp workers Jerry Ross, Barry Harshbarger and John Hardenstine erected 146 wood duck boxes on SGL 289. More than 100 boxes were used by wood ducks, and screech owls, mice, flying squirrels and wasps made homes in most of the remaining ones.

— WCO WILLIAM A. BOWER, TROY

Pampered Pooch

TRAINING SCHOOL — Staying at the training school during the week has its drawbacks, such as leaving tasks undone at home. My wife has taken over training my golden retriever puppy, and he has learned to beg, roll over on his back and stare at me with a blank look on his face when I give him a command. It should be an interesting hunting season.

— TRAINEE DAVID BROCKMEIER, HARRISBURG

Sad But True

BEDFORD — During deer season I overheard a fellow at a gas station tell the attendant, "I've run two tanks of gas through this truck and I ain't seen a buck yet."

— WCO TIM FLANIGAN, BEDFORD

Family Affair

TRAINING SCHOOL — During our field training some trainees stayed with WCOs and their families. Many of us got a first-hand look at how WCOs' children and spouses take phone messages, sort mail and help out with various aspects of the job.

— TRAINEE RODNEY L. BURNS, HARRISBURG



Nightmare

Mike Hazlett was deer hunting when he came upon a black bear sleeping on a limb of a fallen tree. He watched the bear for several minutes then went to get his wife, daughter and a friend. When they returned the bear was still sleeping on the limb, but while they were watching, it stood up, stretched and then lay back down and fell asleep again. For Mike and his family it was a great experience; for the bear it was probably just a bad dream.

— LMO JAMES DENIKER, SANDY LAKE

It's Working

Last winter I visited a NWTF superfund project with Brad Taylor of the Shade Mountain chapter. We were discussing habitat improvements that Brad hoped to accomplish through the Game Commission's Volunteers for Wildlife Program when four gobblers appeared in the food plot.

— LMO CLAYTON G. VANBUSKIRK, MILLERSTOWN

Makin' the Rounds

McKEAN — Thinking that a coyote had gotten to a beaver in his trap, John Keesee was surprised to see a bear checking the rest of his sets on his line.

— WCO LEN GROSHEK, SMETHPORT

Safety First

TIOGA — While turkey hunting this spring, wear the required fluorescent orange when moving, positively identify your target, protect your back when calling, never stalk a turkey or turkey sound, assume every noise and movement is another hunter, shout "Stop" to alert an approaching hunter, never wear red, white, blue or black clothing, and practice courtesy and self-control at all times.

— WCO RICHARD J. SHIRE,
MIDDLEBURY CENTER

Had to Ask

TRAINING SCHOOL — On my first day of field training, WCO Steve Bernardi and I were driving through Bald Eagle State Forest in Snyder County when we saw a flock of turkeys and some deer. I mentioned that we needed to see a bear for the day to be complete. That evening Steve's wife, Tina, was looking out the window when she saw a bear standing against my truck and three cubs in the yard.

— TRAINEE MATTHEW P. TEEHAN, HARRISBURG

Deadly

LACKAWANNA — I've recently investigated two incidents in which deer were killed by pellet guns. In both cases the deer had been eating shrubs. Both individuals who shot the deer were nonhunters and had purchased pellet guns specifically to chase deer from their lawns. Both were unaware of how powerful and potentially dangerous a pellet gun could be, and neither was interested in owning a pellet gun after the incidents.

— WCO DANIEL E. FIGURED, DUNMORE

Who's Managing Who?

We've all heard the saying, "a plumber with a clogged drain." Imagine my surprise when my wife's vehicle wouldn't start because the air cleaner was clogged with pheasant and duck feathers. Despite being a wildlife manager, I'd still prefer those pesky mice build their nests outside of my garage.

— LMO JERRY A. BISH, HARTSTOWN



Nice Try

A man claimed that because he had mistakenly taken his wife's medication, he was in a delirious state when he cut down a few trees on a game lands here. Our investigation revealed that more than just a few trees had been cut, and on more than one occasion. The next time this guy decides to take his wife's medication, he'd better hide the chainsaw first.

— LMO DAVID R. KOPPENHAVER, EVERETT

Tasted Like Cardboard

SCHUYLKILL — I was setting out flares at an accident scene late one night when a paper cap tore from one of the flares and began rolling across the road. A shadow brushed by my head and came to a "screeching" halt at the edge of the highway. It seems a screech owl mistook the cap for a mouse. Once it realized its mistake, the owl dropped the cap and took off.

— WCO STEVE HOWER, PINE GROVE

Buck harvest up, antlerless harvest down

HUNTERS TOOK more than 377,000 deer in Pennsylvania last year, including more than 11,000 antlerless deer taken by junior hunters on the two Saturdays of buck season.

The buck harvest of 181,449 was the second best ever, and coupled with the fact that three of the top four buck harvests have occurred in the past four years, indicates the deer population is not declining.

The antlerless harvest was 196,040, the lowest since 1987, due to antlerless license sales that were lower than in many past years, limited surplus licenses sales and, compared to 1997, a return to more normal harvest rates.

Plotted over time, buck harvests serve as a good deer population barometer because hunting pressure remains fairly constant from year to year. Antlerless harvests, however, are influenced by antlerless deer license sales, which fluctuate from year to year, depending upon deer management objectives and availability of surplus licenses in each county.

Heading into the 1998-99 seasons, biologists were expecting a reduced buck harvest. They forecasted a kill of 164,000 (excluding the six special regulations counties), and got 174,686. "We were within 7 percent of our estimate," noted PGC biologist Bret Wallingford. "We've been closer in recent years, but any forecast within 10 percent of the actual harvest indicates our program is effectively track-

ing the deer population."

Along with an ample supply of antlered deer, dry weather and mild temperatures likely contributed to the high buck harvest. The agreeable weather may have enticed more hunters to head afield than normal and allowed them to stay afield longer.

While the buck harvest was one of the highest, the antlerless take was one of the lowest in recent years. "The drop in the antlerless harvest wasn't unexpected," said Wallingford. "More antlerless licenses were sold last year than in 1997, yet fewer antlerless deer were taken. Some people may interpret that to mean there are less deer. But the fact that the buck harvest increased from 1997 to '98 (176,677 to 181,449) indicates the deer population did not decline."

Last year, 26 percent of antlerless license holders took a deer. In 1997, the rate was 32 percent — one of the highest on record. "Deer hunting success rates will always vary," Wallingford said. "In 1997, we had nearly perfect hunting weather, and that edge elevated hunter success to above normal rates. In 1998, even with good weather conditions, hunter efficiency returned to more normal levels. Such variability is to be expected when most of the deer kill occurs in a short season. A longer regular firearms season for antlerless deer would likely reduce rate fluctuations because it would provide hunters more time to take deer."

1998 Deer Harvest

The following table lists the deer harvest data for each Pennsylvania county in 1998, as shown on the map. The format is A-*Antlered*, AL-*Antlerless*.

County	Antlered (A)	Antlerless (AL)
Adams	1,781	1,476
Allegheny	2,287	5,398
Armstrong	4,168	5,289
Berks	3,646	4,201
Butler	4,229	4,898
Cambria	4,474	5,680
Carbon	1,325	850
Cecil	1,287	1,335
Chesapeake	745	1,516
Clearfield	5,643	5,560
Columbia	509	2,222
Crawford	4,724	5,440
Cumberland	1,322	1,355
Dauphin	1,473	1,497
Delaware	1,821	3,732
Elk	2,725	2,600
Franklin	1,911	2,144
Fulton	1,881	1,874
Greene	3,985	4,905
Huntingdon	1,574	1,502
Juniata	1,622	1,551
Lancaster	1,410	1,507
Lebanon	938	960
Lehigh	1,287	1,335
Luzerne	3,417	2,828
Lycoming	3,527	2,851
Mifflin	1,008	946
Monroe	1,724	891
Montgomery	1,518	3,252
Northampton	1,277	1,335
Northumberland	1,193	1,515
Perry	2,588	2,840
Pike	1,730	1,305
Potter	4,828	3,982
Schuylkill	3,516	4,020
Snyder	1,088	1,312
Somerset	4,400	4,964
Susquehanna	3,705	3,564
Tioga	4,834	4,378
Union	1,088	1,312
Warren	4,417	5,685
Washington	5,718	5,801
Wayne	3,272	2,646
Westmoreland	5,570	6,560
York	3,034	2,911

Antlerless Deer (A)

All Seasons	196,024
County unknown	16
Total	196,040

and Northwest, 33,322. The Southwest Region also had the largest antlerless deer harvest, 46,774; followed by the Northwest, 38,539; and Northcentral, 30,201.

As for the new special youth antlerless deer hunts on buck season Saturdays, about 11,300 antlerless deer were taken by junior hunters on those two days. While actual harvest rates for junior hunters are not known, it's safe to say that around 40,000 to 50,000 young hunters took advantage of this new, special season.

The buck harvest increased in 44 counties. Posting the largest increase was Montour with 21 percent. Following were Erie and Forest counties, both with 20 percent hikes.

The antlerless deer kill was vastly different; harvests dropped in 49 counties. The largest declines were recorded in Monroe County, down 54 percent;

Carbon, 42 percent, and Susquehanna, 39 percent. All of these counties, however, experienced drops in antlerless license sales. Monroe, for instance, saw its antlerless allocation cut from 7,000 in 1997 to 4,400 in '98. Counties posting significant harvest declines despite increased antlerless licenses sales include: Franklin, down 28 percent; Blair, 26 percent; and Wayne, 23 percent.

"It's impossible to determine what caused some of these declines," Wallingford said. "But some are relative to antlerless allocation reductions. Other factors include the same things that influence the hunter success rate: hunter participation and effort, and deer distribution."

Archers this past year posted new highs with a total harvest of 59,715 deer, including 32,334 antlered deer. The 1998 total archery harvest tops the state's former high, in 1996, when bowhunters took 56,323 deer. The new archery buck harvest eclipses the record set in 1997 when archers took 29,163 bucks. For the second straight year, bowhunters shot more bucks than antlerless deer (27,381).

Counties posting the largest archery buck kills were Westmoreland, 1,578; Butler, 1,253; Allegheny, 1,189; Berks, 1,189; and Washington, 1,009.

Allegheny led the state in archery antlerless harvest with 2,101, followed by Chester, 1,221; Bucks, 981; Westmoreland, 916; and Berks, 812.

Rifle hunters took 82 percent of the deer harvest, down two percent from 1997. Archers accounted for 16 percent, and muzzleloader hunters, the remaining 2 percent. Flintlockers harvested 9,244 deer (including 767 bucks), which is down slightly from their 1997 take.

Hunters took 72 percent of the deer kill on private property during all hunting seasons, based upon information reported by hunters on deer harvest report cards. The rate is similar to 70 percent in 1997 and equals the 72 percent rate in 1996. About 75 percent of the state's forestland is privately owned.

Deer harvest figures are based largely upon information gathered at deer processing plants and from deer harvest report cards. In 1998, 30 deer aging teams examined 21,331 antlered deer and 24,913 antlerless deer. That same year, 174,380 deer were reported, a slight decrease from the 186,707 reported in 1997. Reporting rates have been gradually declining over the years. Now, less than half those who shoot deer report them, as required by law.

24th Class graduates, given field assignments

THE 24th Class of the Game Commission's Ross Leffler School of Conservation was graduated Saturday, March 13. Officers were commissioned as Wildlife Conservation Officers and were assigned to field districts throughout the commonwealth.

The 13 trainees reported to the RLSC training facility at the

Commission's Harrisburg headquarters June 7, 1998. Included in their 39 weeks of intensive classroom instruction and field training were wildlife management, law enforcement, wildlife laws and regulations, land management practices, conservation education and public relations and firearms training and unarmed self-defense.



Joe Osman

MEMBERS of the 24th Class take their oaths of office before District Justice Wilbur L. Reddinger, Shamokin. The new wildlife conservation officers have been assigned to districts across the state.

Deputy Executive Director Mike Schmit presented three awards during the graduation ceremony. Dan Sitler captured the Academic Achievement award, with a 97 percent average. Steve Leiendecker received the award for being the top shooter, attaining a 377 out of 500, and Jerry Czech earned the "Torch Award," a new award in which the trainees themselves select the one who exhibits the highest professional standards of the class.

The graduates, their hometowns and new assignments are: Rodney E.

Bimber, Russell, Warren County, assigned to Allegheny County; David L. Brockmeier II, Shillington, Berks County, assigned to Berks County; Rodney L. Burns, Brookville, Jefferson County, assigned to Greene County; Jerrold W. Czech Jr., Philadelphia, assigned to Philadelphia County; Frank E. Leichtenberger Jr., Edinboro, Erie County, assigned to Washington County; Stephen A. Leiendecker, Pittsburgh, assigned to Fulton County; Barry A. Leonard,

Hollidaysburg, Blair County, assigned to Bucks County; Rose Luciane, Scranton, assigned to Delaware County; Richard E. Macklem, Lock Haven, assigned to Bucks County; Randy W. Pilarcik, Gettysburg, assigned to Lawrence/Butler counties; Daniel T. Sitler, Cranberry Township, Butler County, assigned to Allegheny County; Thomas D. Swiech, McAdoo, Schuylkill County, assigned to Monroe County; and Matthew P. Teehan, Glenmoore, Chester County, assigned to Chester County.

Pheasant project proposal withdrawn

A PROPOSAL intended to restore viable populations of ring-necked pheasants on two southeastern game lands was withdrawn by Game Commission President Vernon Shaffer during a special commission meeting held February 25.

Shaffer's proposal included petitioning the U.S. Fish & Wildlife Service to remove protection on red-

tailed hawks and great horned owls on the two game lands, a proposition that sparked considerable public reaction throughout the wildlife conservation community. That request, it turned out, was denied by USFWS just hours before the special meeting was held.

The commissioner's proposal intended to determine whether changes in sporting activities, pheasant stock-

PENNSYLVANIA

TOURISM WEEK

Memories last a lifetime.

May 2 – May 8

ings and avian predator management could spur pheasant recoveries on State Game Lands 280, near Reading, and SGL 46, including the Middle Creek Wildlife Management Area in Lebanon and Lancaster counties.

The plan included banning pheasant hunting and dog training for two years, and stocking 1,000 Pennsylvania game farm pheasants and 50 wild pheasants from the Midwest on each state game lands.

At the meeting's outset, Shaffer announced he planned to remove SGL 46 from his proposal. After hearing considerable testimony from the public and agency staff on his plan, he withdrew his entire motion.

Cal DuBrock, Bureau of Wildlife Management director, said the future for pheasants isn't bright. "The recovery of pheasants in the commonwealth isn't possible unless we fix the habitat. Their decline is a symptom of landscape illness."

The Game Commission has been wrestling with the state's pheasant decline for many years. As recently as the early 1970s, the state's wild pheasant population exceeded a million birds. Today, it's a small fraction of that. Most wildlife managers agree the decline was caused by land-use and agricultural technology changes.

Over the past decade, the Game Commission has conducted pheasant

recovery projects on several study areas. Biologists concluded from that work that the problem with pheasants — both ring-necked and Sichuan — in Pennsylvania was a lack of large blocks of habitat. About the only change that could cause a pheasant resurgence, according to biologists, would be large-scale habitat improvement and set-aside projects on private and public lands.

Some in the audience expressed a concern that just the idea of even considering some form of avian predator control might send the wrong message. In answer to that, Mike Schmit, Deputy Executive Director clearly stated, "The Game Commission remains committed to both federal and state protection of avian predators, including the red-tailed hawk and great horned owl. There will be no relaxation of our law enforcement efforts in that area."

In other action, the commission approved the establishment of a firearms range at Luzerne County's SGL 119. Agency costs for the range, which will be built and maintained by the Georgetown Conservation Club, are limited to no more than \$1,000.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

Commission officers on Governor's Twenty

A TRIO of wildlife conservation officers from the Game Commission earned places on the Governor's Twenty for 1998, an honor reserved for the top law enforcement handgun marksmen in Pennsylvania.

The three are WCOs Skip Littwin, Gary W. Packard and Steven Bernardi. Littwin and Packard are assigned to the commission's Bureau of Law Enforcement, Harrisburg. Bernardi is a district WCO in Snyder County.

In making the Governor's Twenty

for the 11th consecutive year, Littwin had an average of 1477.3-80.3x, sixth overall. Packard appeared on the list for the eighth time with an average of 1476-79.6x, seventh overall. Bernardi ranked 11th with an average of 1471.3-82.6x.

Packard ranked fifth in Pennsylvania Police Combat Association individual semi-automatic pistol competition with an average of 478.3-35.3x, followed by Bernardi with an average of 476-32x.

Middle Creek programs

AN EXCITING lineup of programs is again planned for the Middle Creek Wildlife Management Area.

On May 5 & 6, WCO Tim Flanigan will present "Ruffed Grouse — A Bird for All Seasons."

An outstanding photographer, Flanigan will follow the bird's natural history through the seasons and offer some insights on pursuing what many believe to be the

king of game birds.

On May 19 (one night only) Dr. Gregory P. Bach, a physician and medical researcher, will present a program on Lyme disease. The disease, its

affects on the body, treatment and case studies will be included.

Programs are free and begin at 7:30 p.m. The Middle Creek visitors center is south of Kleinfeltersville.



REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 570-398-4744

Southcentral — 814-643-1831

Northeast — 570-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered** species or **multiple big game animals**. All other calls should be made to the appropriate region number above.

1999 YHEC event scheduled

PENNSYLVANIA'S 1999 Youth Hunter Education Challenge event will be held at the Game Commission's Scotia Range in Centre County on Saturday, June 19.

The top scoring junior competitors (ages 11-14) and seniors (ages 15-18) will be eligible to take part in the National Rifle Association sponsored International YHEC to be held later this summer and hosted by Pennsylvania in the Mansfield area.

The YHEC program gives interested youth an opportunity to build upon the foundation provided by the Game Commission's Hunter-Trapper Education program. The state YHEC event features simulated hunting situations involving 22-caliber rifle, shot-

gun, muzzleloader and bow and arrow marksmanship, along with a general knowledge of Pennsylvania's wildlife and hunter safety and responsibility.

Interested parents and sportsmen's organizations can sponsor an individual youth or a team of five youngsters. All youngsters must have successfully completed a state approved hunter education course. Individuals and teams must be accompanied by a qualified coach or a parent/guardian at least 21 years old.

For additional information on the 1999 Pennsylvania Youth Hunter Education Challenge, write: Pennsylvania Game Commission, Hunter-Trapper Education Division, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.



THE TAMARACK TURKEY TALKERS, a NWTF chapter from Corry, and a group of Cub Scouts and Webelos from Mill Village, Erie County, cooperated to construct approximately 40 bluebird boxes for Land Manager Shayne Hoachlander. Cavity nesting birds will not only benefit from the additional boxes on state game lands, but also from the increased awareness the kids acquired from education instruction during the day. Also, the kids were introduced to an active conservation organization, the NWTF. Both communities and wildlife benefit when relationships are fostered between youth groups, conservation organizations and wildlife agencies.

Urban sprawl is gobbling up wildlife habitat at an alarming rate. What's does the future hold?

Worry and Guilt for Wildlife's Good

THE NORMAL adult mode is worry and guilt. Come to think of it, worry and guilt are not just restricted to grown-ups. Who hasn't experienced the exaggerated emotions and implications of actions that are part of childhood: the worry over whether or not you'll get the toy you so desperately want — no, I take that back, need — and the terrible guilt over having snatched an extra cookie and having blamed your little brother?

Worry and guilt are just part of the human condition. We find these easy, and contentment hard. As we grow older, what we worry about and feel guilty about change. We know more. If we're hunters, we get to add the worries and guilty feelings that accompany that recreation and its conservation concerns. Welcome to one more layer on the cake-slice of life. No one promised that every bite would be delicious.

Worries as a sportsman? Whoever isn't worried about wildlife and its habitat must not watch TV, listen to radio, read the papers, talk to other worried adults or even step outdoors. In today's world of the Internet, access to dozens of TV channels, of cell phones and all-night talk radio, you couldn't have missed the land crunch going on across the country. Urban sprawl is on many clucking tongues. Some might say

this is "development" or "progress," especially if they're making a profit from it, but the rest of us know the bugaboo by its real name, "urbanization" or the apt description, "paving the landscape."

Seems like everywhere I turn lately, I read about the effects of urban sprawl. On the social side, sprawl results in a feeling of disconnectedness. This is understandable, when more and more people live in far-flung housing developments, travel via tangles of high-speed highways, to work all day in concrete "boxes" surrounded by vast parking lots, shop in other huge boxes surrounded by asphalt, and go home again. They never belong to a town or community, never have the comfort of "neighborhood," can't stroll easily to anywhere.

As someone interested in wildlife and wild places, who would rather see a "vacant" field paved with butterflies and wildflowers than macadam, I have particularly tuned into what urban sprawl is doing to diminish wildlife's place to live, how it is killing off Pennsylvania's natural world, inch by inch. And for what?

All right, this is normal, adult, worry, worry, worry. But there's an upside. I'm also tuned into the good that's happening in the way of reducing the effects of urban sprawl. Like a child who worries about getting a special toy for Christmas and sees a

suspiciously shaped package under the tree, I'm not biting my nails as much anymore. I've learned that encouraging wiser land use and discouraging sprawl is a top priority of Governor Ridge's 21st Century Environment Commission. And I found out about anti-sprawl state programs and budget proposals that could help fund "Pennsylvania Growing Greener," a plan that, among other conservation objectives, would help communities adopt sound land-using planning and make infrastructure investments. Looks like we might find ways of keeping the town in the town.

If you've been turning the page when an article addresses urban sprawl, to go on to the "regular" outdoor columns and features, consider this and read on: Building up and paving over the landscape reduces places for hunters to ply their sport. Fewer wildlands means less wildlife and game animals, and not as much hunting opportunity. That can mean fewer new hunters entering the sport and keeping our wonderful tradition alive. Maybe that story on sprawl is a sportsman's tale after all.

I recently read that the Izaak Walton League of America has published a report on their "Hunting Ethics and Land-Access Project," which talks about the sprawl/hunting opportunity problem. The League says rural and agricultural landscapes provide habitat not only for wildlife but also for hunters. At some point, says the report, if suitable habitat is no longer accessible to them, hunters will stop hunting. (You can receive the free report by calling (800) IKE-LINE or writing the Izaak Walton League of America, Outdoor Ethics Program, 707 Conservation Lane, Gaithersburg, MD 20878-2983.)

I'm also worrying a little less because I read that some of the nation's

largest cities, including Cleveland, Houston, Memphis, Denver and Seattle, are forecasting a big jump early in the new century in the number of people who call their downtowns "home." These folks are expected to settle in town because they won't have to commute as far to work, and they'll have more cultural amenities nearby. Maybe sprawl will slow because of its own disadvantages.

As an outdoors enthusiast, that would erase some of my frown lines and bring a smile. This information on sprawl was in a land conservation newsletter, "Common Ground," issued by The Conservation Fund, 940 Stillwater Lane, Earlysville, Virginia 22036; (804) 973-7324; e-mail coground@aol.com. The newsletter is also on their website at www.conservationfund.org.

Just when I figured my concerns about sprawl taking over wildlife habitat were being addressed, I realized I live in a sprawl house. I don't live in town; I'm in the country, my house lot is carved out of a forested hill. Like many of you, a home in the country was always my dream, and I don't regret the enjoyment I've had living here. I could use the excuse I didn't clear the lot and build the structure; I bought it from a

Bob Steiner



PRESERVING rural and agricultural landscapes provide habitat not only for wildlife but also for hunters.

previous owner. But if I hadn't found his place, I'd have purchased wooded ground somewhere else and had another house put up. There would have still been the same disturbance of the landscape, the transforming of woods, leaf humus and spring wildflowers to green lawn, plus the same bringing in of electric, septic tank, bulldozing a driveway and so on.

In my defense, I've tried to soften my sprawl-effect on the surrounding woods by reducing dramatically the original cleared-lawn area and returning much of the ground to natural or natural looking plantings. I let the woods encroach toward the house. Some of this was because I didn't want to mow much, but it was mostly because I wanted wildlife, such as songbirds, hummingbirds, squirrels, rabbits, even deer and turkeys, near enough to watch. I've atoned somewhat for the "sin" of building in the woods, I believe, and I don't intend to move.

My guilt load has been lightened, but then I drive around the countryside and see true sprawl homes. You've seen them, too, places where the owner didn't "get" the idea of the woods he was moving to and recreated the town, leveling acres of perfectly good trees and now complaining of too much lawn to mow and deer eating the shrubs. As the kids say, "Duh!" Why did he move to the country and then try to erase the country? I'm still learning about the natural world I've invaded, and am doing my penance.

Aldo Leopold, the father of wildlife conservation, had much to say about humans' relationship to and effect on the land, how people live both against and with the land. "When we see land as a community to which we belong, we may begin to use it with love and respect," said Leopold. I agree, and I don't think it's enough to save tiny bits and pieces of green space. That's taking the heart and soul out of the machine. We've got to give more to the future than pockets of trees between huge parking lots, or how can the future be a



Bob D'Angelo

BUILDING UP and paving over the landscape reduces places for hunters to ply their sport. Fewer wildlands means less wildlife and less hunting opportunity.

worthwhile place to live? "Of what good are forty freedoms," asked Leopold, "without a blank space on the map?"

Public lands help, but I'm realistic enough to know that public agencies can't acquire and protect all the land we need to. That's why I'm happy to see increasing discussions on land-use planning, more talk of revamping the state codes to allow green-space zoning, and the expanding popularity of conservation easements to preserve farmland and wildlands. Some may say this is "governmental control," but I say it's just plain smart to think ahead. Especially if you're a hunter.

Knowing the effects of urban sprawl, I am comforted by and appreciate more the state forests, state parks and state game lands we have, and I hope that, where possible, we can reserve more. Game lands are especially welcoming (many of the Game Commission game lands signs say, literally, "Welcome"). The next time you're out for a day afield on one of these tracts, consider that it's not just a convenient place to take time out from your own grown-up worries and guilt. Consider that it's a front-line defense against urban sprawl's appetite; consider in how very many ways it's working for the good of wildlife. □

Behind the Badge

By Guy Hansen

Dauphin County WCO



Not that Joe



ONE YEAR after deer season was over I obtained some used deer tags from area processors and taxidermists and decided to see if the deer had been reported. I ran the hunters' names through our database of reported deer kills and found several who evidently had not reported their deer. During follow-up investigations I became interested in a few who raised my suspicions. One was Loretta. I noticed that she had bought her license the day before the

archery season. This is unusual because most archery hunters purchase their licenses early, in time to apply for doe licenses. I decided I should have a talk with Loretta, and we made arrangements to meet at a township building.

When we met I asked Loretta to tell me how she had killed the deer. Loretta claimed that her boyfriend (at the time)

took her out to his treestand twice before the season opened. While in the stand she had practiced shooting his bow. On the opening morning a buck walked by and she shot and killed it. Then she took it to her local taxidermist for mounting.

One look at Loretta, who is about 5-3 and 110 pounds, convinced me that there was no way she would be able to use someone else's archery equipment.

I asked her if this was the first hunting license she had ever purchased, and she said that it was. I then asked her where and when she had taken her Hunter-Trapper Ed course. Loretta replied that she had not taken the course. Deputy Schultz and I looked at each other knowing that with this admission the rest of the story was not too far behind.

I explained to Loretta that her license was invalid, because she hadn't taken the safety course and, therefore, the deer had been killed illegally. I also told her that I didn't believe that she could have used her boyfriend's equipment, and on just her third trip to the woods, kill a deer. Loretta dropped her head and stared at the floor. After a few moments of silence I asked her if she had killed the deer. She said no. I asked her who did and she replied, "I didn't." I asked her if her boyfriend killed the deer and she nodded yes. When I asked for his name she was reluctant to give it. After several requests, she finally told me her boyfriend was Joey Green.

I asked where I could find Green, but Loretta couldn't remember where he lived. I asked when his birthday was, but she couldn't remember that, either. After 30 minutes the only information I had was that Joey Green was an insurance adjuster, and that he used to live in Philadelphia but now lives in New Jersey. Loretta ex-

plained her lack of knowledge about Joey on the fact that she dated him for just a short time. I told Loretta that before I issued citations I wanted to get in touch with Mr. Green, and that I would get back in touch with her.

I ran the name Joe Green through Game Commission and other law enforcement related files, but with no luck. I then went to the taxidermist Loretta had mentioned to get the deer head, but he had nothing listed under Loretta's or Joey Green's name. The harder I looked, the more frustrated I became. Finally, I called Loretta back and asked her if she had any more information on Joey. She had none. I then explained to Loretta that I was going to cite her for buying a license she was not entitled to, lending her license, and for aiding, assisting, or conspiring to unlawfully kill a deer. Loretta pled guilty to the charges and went on time payments to pay the fine.

Some months later I told this story to an acquaintance when he remarked, "I know a Joey Green who is an insurance adjuster and used to live in Philadelphia but now lives in New Jersey." I could see that he was apprehensive about giving me Joe's phone number, so I asked if he would ask Joe to call me.

Later that night the Southeast Region dispatcher called to say that Joe Green had called and left his number. I contacted Joe and immediately began to doubt that he was the person I was looking for. I asked him if he knew Loretta. He said that he did, that he had done some insurance business with her about six months earlier. When I explained how Loretta had used his name, he offered to help in any way. I suggested that he call Loretta to find out who I was really looking for.

I didn't tell Loretta that the real Joe Green had given me all the information I needed, including the name of the real violator.

The next day I had two interesting phone messages. The first was from Loretta that said, "call me," and the second was from Joe Green that said, "call me, but call me before you call Loretta."

I called Joe back first. He told me that he had called Loretta and confronted her about blaming him for being involved in the deer hunting incident. Loretta broke down and told him everything, including the name of the real boyfriend.

I then called Loretta back. She yelled and screamed at me for being so insensitive and causing problems with poor Joe Green.

"You said that your boyfriend was a Joe Green who worked as an insurance adjuster, who used to live in Philadelphia but now lives in New Jersey, right? I found him," I said.

"Not that Joe Green," Loretta replied.

"You mean to tell me that you know two Joe Greens who are insurance adjusters

who used to live in Philadelphia and now live in New Jersey?" I said.

"Yea," she replied.

I didn't tell Loretta that the real Joe Green had given me all the information that I needed, including the name of the real violator. With that I seized the head and cape from the taxidermist.

From that point it was just a matter of time until I tracked down the real violator.

Detectives in Philadelphia told me they knew the name well that I had given them, and said that he was the neighborhood "toad." Armed with a color mug shot, we went to his last known address and confronted him. As the violator paid his fines, he kept repeating that he was innocent. But as WCOs often say, no one pays the fine unless they're guilty. After working on this case for over six months I can say with confidence that the real "toad" was guilty. □

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We've all been told as kids to stay out of mud puddles but, like all of us back then, Marcia, on a recent trip, just couldn't resist . . .

Exploring the Muck

THE BEST part of nature-oriented meetings is the field trips. Take, for example, the Pennsylvania Society for Ornithology's annual meeting on the third weekend of May. It always conflicts with another meeting I usually attend, but last May, for the first time, I chose the PSO meeting. Although the afternoon session of lectures and papers was interesting, I was particularly impressed by the full roster of field trips both Saturday and Sunday mornings. Most intriguing of all was a field trip to The Muck. With a name like that, it had to be good.

Up by 5:30 and out an hour later on a foggy Saturday morning, my husband Bruce and I headed for The Muck. Also known as "Big Marsh," it is one of two prominent wetlands in the 3,000-acre Marsh Creek Valley between Niles Valley and Ansonia, north and west of Wellsboro in northcentral Pennsylvania. Marsh Creek itself is a major tributary of Pine Creek, the creek that cuts through Pine Creek Gorge, known as the Grand Canyon of Pennsylvania. Familiar with that dramatic landscape, we were unprepared to find an almost level, marshy wetland nearby.

Formed by glacial deposits during the



~ Red-winged Blackbird ~

last Ice Age 15,000 years ago, an accumulation of lake clay from Paleolake Hammond, which had covered the area at that time, along with extensive sand and gravel deposits, flattened the valley floor. In some places glacial deposits are 200 feet deep. Because of glacial activity, the valley is poorly drained, but it is also rich in

organic soils. Such a combination has produced valuable wetland habitat.

The Muck is so named because of its soil composition. Both peat and muck are made up of partly decomposed organic plants such as sedges, reeds and cattails. But while peat also contains large plant pieces that have not properly decomposed, muck is finer soil that has been wholly decomposed. Of the 929 acres of wetlands in Marsh Creek Valley, 650 are emergent marsh that is defined as regularly inundated muck.

Before Europeans arrived, The Muck was relatively untouched by humans, although Native Americans hunted the abundant elk, deer and waterfowl in the valley. Good hunting and rich soils enticed white settlers at the end of the 18th century, and after 1820, farmers rapidly cleared the forests. But the worst deforestation began in 1838 when lumber companies moved in to cut the virgin hemlock and white pine. Tanneries, which extracted tannic acid from hemlock bark and used it to process leather, sprang up in the area. Rail lines were constructed to get their products to market. In 1872 one was built through The Muck, destroying many acres of pristine wetlands by diverting the drainage along the raised railroad bed in some places and blocking it in others.

Then, in 1890, much of the remaining wetland was ditched and drained, so that lettuce and celery could be raised in the rich soil. At one time the Marsh Creek Valley produced much of the nation's celery. The peak occurred in 1901 when 500 railroad carloads of lettuce and celery were shipped to market.

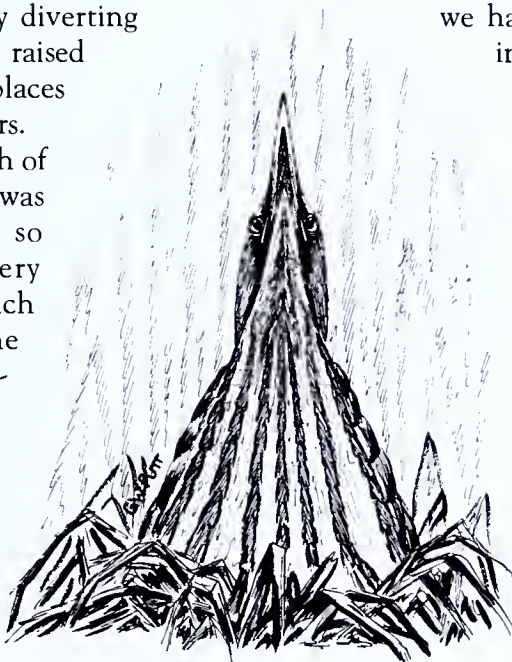
Gradually,

though, nature (and California grown produce) defeated the farmers. Because there is little relief between the field surface and Marsh Creek, trenches could not be dug deep enough for proper drainage, and without proper drainage, it was impossible to farm the land. Despite being fitted with "muck shoes" made of steel lid covers, horses frequently sank in The Muck, and occasional natural floods would wipe out crops for a season. By the 1950s most farmers had abandoned the land, and The Muck was free to recover from humanity's abuse. While little, if any, pristine wetland remains, the ditches have filled in with silt and organic debris, and today most of The Muck is part of recently acquired SGL 313.

With no prior knowledge of The Muck's history, it seems as it has always been, a wild place filled with singing, calling birds. Instead of being an impediment to proper drainage, the railroad embankment is a convenient place to walk and see the cattail filled marsh beyond without getting wet feet, and there is no denying the diversity of bird species that live in The Muck.

As soon as we stepped out of the car we heard the unmistakable booming of an American bittern. It had been years since

we had heard this increasingly rare wetland bird, so rare, in fact, that it is now listed as a threatened species in Pennsylvania. Yet, during our walk along the embankment, we heard at least two of them. It's much harder to see this elusive bird because it stays hidden in the stands of cattails, bulrushes, grasses, sedges and spatterdock that characterize the freshwater marshes it inhabits. When it



~ American Bittern ~

The Pennsylvania Society for Ornithology is our state bird club. Founded to foster the study and appreciation of the birds of Pennsylvania and to promote the conservation of birds and their habitat. Members range from birdwatchers to professional ornithologists. As we discovered, their programs and field trips are enjoyable and educational. (Our Sunday field trip to three boreal wetlands on Armenia Mountain in Tioga State Forest was equally interesting.) In addition to a newsletter that keeps members current on bird conservation issues and research in the state, membership includes a subscription to *Pennsylvania Birds*, which features articles on bird identification, rare bird reports, new state nesting records, book reviews and guides to favorite birding sites across the commonwealth. For more information and/or a membership application, write to Pennsylvania Society for Ornithology, 2469 Hammertown Road, Narvon, PA 17555-9726.

is exposed, it freezes in place, its bill pointed upward, its brown-streaked white breast almost perfect camouflage for this chunky, brown-backed heron.

Once, many years ago in a central Maine marsh, I actually spotted an American bittern in such a position, but mostly I've been happy to hear the *pump-er-lunk* call that gives it such nicknames as thunder-pumper and stake driver. *Pump-er-lunk* sounds to me like great gulping noises, but to earlier observers it sounded either like an old fashioned wooden pump or an axe pounding a wooden stake into the ground. Although this thunder-pumping performance can be heard (and seen) in the summer and, rarely, in the fall, it is most common in the spring as part of the male's courtship and mating ritual.

Of course, such a wetland was dominated by singing red-winged blackbirds, but sharper eyes (and ears) also heard swamp

sparrows, marsh wrens, Virginia rails and soras. Marsh wrens, formerly called long-billed marsh wrens, are listed as a vulnerable species in Pennsylvania, because during the state's bird atlasing project their numbers were low even in the glaciated areas where they had once been numerous. They, too, need emergent wetlands of cattails and sedges, such as The Muck offers. They have always been a signature species, singing throughout the day and even into the evening as males build up to 10 globular-shaped dummy nests in their territories while awaiting the arrival of females that build true nursery nests.

In Pennsylvania two distinct marsh wren forms breed. One (*Cistothorus palustris palustris*) nests along the Atlantic coast from Rhode Island to Virginia and was once an abundant species in the tidal marshes of the Delaware River south of Philadelphia. The prairie marsh wren (*C. p. iliacus*) is the form found at The Muck and in the rest of the state. It is larger than *palustris* and has a buff chin, throat and belly, in contrast to the white underparts of the coastal form.

In-depth searching of The Muck by ornithologists has led to the discovery of still another vulnerable wetland species in Pennsylvania — the least bittern — which is even more elusive than its larger relative. We neither saw one nor heard its quiet *coo-coo-coo* song. But as a dry mountaintop dweller, I was pleased with the presence of sora and Virginia rails. Neither is a listed species, but both remain vulnerable to the continual loss of emergent wetlands. Cattails and sedges are requirements for them, although soras like deeper water than Virginia rails. Often their territories overlap, but because soras eat seeds and Virginia rails prefer insects, they coexist harmoniously. After much persistence and with taped Virginia rail calls, we did entice an occasional irate male Virginia rail into the open. But we had to be content merely to hear the whistles and descending whinny calls of the soras.

With the help of 25 PSO members, all with binoculars and a few with spotting scopes, we saw and heard more birds than we would have individually. Everyone moved slowly and quietly, and groups gathered around whomever had the best birds in view. Because spring migration was at its height, the line of trees on the marshless side of the embankment hosted species such as scarlet tanagers, rose-breasted grosbeaks, an eastern kingbird and a gray catbird carrying nesting material. Best of all the songbirds was a singing yellow-throated vireo that posed long minutes on an open branch for all of us to study.

But, for the most part, The Muck and its denizens held our attention as tree swallows swooped overhead, wood ducks flushed and swamp sparrows trilled. The early morning fog, which had wrapped the wetland in mystery and made bird watching difficult, gradually lifted, revealing

muskrat lodges and beaver works. Bullfrogs and spring peepers added their calls to those of the birds. Ornithologist Arthur Cleveland Bent could have been describing The Muck when he wrote in 1926, “. . . when the waters are teeming with new life and the trees and shrubbery are enlivened by the migrating host of small birds, one loves to linger on its border and listen to the voices of the marsh...the spirited, resonant trill of the swamp sparrow is heard in the long, tufted grass of the open spaces; the loud gurgling songs of the long-billed marsh wrens come from the cattail flags, where an occasional glimpse may be had of the lively little birds; from way off in the marsh the clucking, clattering voice of the Virginia rail alternates with the whinnying cry of the sora, only a few feet away. But above them all in intensity and volume are the loud, guttural pumping notes of the bittern . . . ” □

Fun Games — By Connie Mertz

Identify Me

Read the following clues, then copy each misplaced capital letter below and unscramble to identify me.

I'm a large shrub someTimes growing to 15 feet. My Oval, pointed leaves are evergreen and leathery. My clUster of white to deep pink flowers blossom in May and June. I am found In rocky terraiN and woodlAnds. My leAves are poisonoUs to cattle, sheep, goats, horses and sometimes peopLe, but deeR browse on them during winter. My wood is sometimes used to make spoons and pipEs. I was named by Peter KaLm, an 18th century botonist who named me *Kalmia latifolia*.

answers on p. 64

What has traditionally been thought of as pre-season scouting is no longer adequate for the serious bowhunter. To be effective, pre-season scouting needs to be “all-season” scouting.

Don't Call it Pre-season Scouting

AUGUST, September and sometimes July — that's when many bowhunters start seriously thinking about deer hunting. It's also when many of them finally get serious about pre-season scouting. I'll admit to being one of those hunters. My oft-stated credo concerning bowhunting has always been, “Once the season begins, the ‘hunting’ stops.”

What that means is this: If a bowhunter has done his or her job correctly and thoroughly in the pre-season — scouted the territory, patterned the deer and properly

placed stands — the actual hunting part of the process has essentially been completed before opening day. The bowhunter then spends the season lying in ambush until the buck or doe of choice happens by. In theory, if your pre-season scouting efforts have been thorough and accurate, you'll fill your deer tag.

And while I still believe in my credo to a great extent, three decades of bowhunting experience have helped me arrive at a few other conclusions about scouting and bowhunting. First and foremost is this: For the serious bowhunter, what we traditionally call pre-season scouting is no longer adequate; to be effective, pre-season scouting needs to become “all-season” scouting.

The problem some bow-



A PRIMARY scrape such as this one is a sure sign of significant rutting activity. Scrapes often occur in the same area year after year. The hunter who scouts year-round knows where the bucks tend to hang out during the rut.

hunters might have with this is the perception that in-season scouting shouldn't be necessary, and that it serves only to cut into valuable hunting time. While this might be true in some cases, let's look at the flip side of the coin.

The key to successful bowhunting is getting close to the deer when the season is open. Here in the Keystone State that means the month of October and the first two weeks of November. A pre-season scouting routine that locates and patterns deer in August or September may end up foiling the bowhunter when October rolls around. One typical scenario for this involves soybean fields.

One summer, after I had gained permission to hunt a new property, I consistently spotted deer entering a soybean field. One of them was a mammoth buck. I saw that deer nearly every other evening I scouted those fields. I noted his preferred path into the field from an adjacent woodlot. I found the perfect tree and hung my stand about two weeks before the season opened, drooling at the prospects of taking such an awesome trophy.

Once my stand was placed, I judiciously decided not to return to that location until opening day. There was no sense in disturbing or contaminating the area with scent. I had no doubt that the buck would be mine. I sat for hours that first evening, fully expecting to arrow my trophy. Not a single deer appeared, but I believed patience and diligence would eventually be rewarded. I doggedly sat in that stand for the first half of our month-long season and spotted only two small does feeding at the edge of the field on the third evening. They weren't even eating the soybean plants. It finally dawned on me that the once succulent soybean plants had turned a crispy and unsavory yellow, they had lost their appeal to the deer. The deer, as I later discovered, had turned their full attention to crabapples and acorns as the season progressed. The obvious lesson here is that early season success depends to a large ex-



THE PRESENCE of sign — even a road sign — can point the hunter in the right direction when scouting for deer.

tent on identifying the preferred foods the deer will be feeding on at any given point in the season, and this can vary from region to region and, to some extent, from year to year.

And this is something that can rarely be determined by limiting scouting efforts to only the pre-season. Once permission to hunt a given property is secured, don't expect to enjoy consistent bowhunting success until you've had at least a year to scout it. This gives you ample time to identify and discover all the potential food sources on the property — cornfields, soybeans, winter wheat fields, grass and clover plots, mast producing hardwood stands and apple trees for example. Resign yourself to the fact that as you hunt the property that first season, much of your time afield should be dedicated to scouting efforts, taking notes, both mental and written, to determine where the deer are feeding, what they're eating and when. The "when" includes both the time of the season and time of day.

But don't make the mistake of scouting

that first year and then assuming the information and notes you've taken are a permanent profile of your property and the deer that reside there. Your scouting efforts need to be ongoing and constantly updated, or your earlier scouting can actually work against you.

Another case in point: It took me that first year to figure out the movements of deer on a small 25-acre property I had

hotspot. Even after I became aware of these changes, I still spent many more unproductive evenings in that stand, both that season and the next, unduly influenced by my earlier successes.

But after that new house went up and the cornfield vanished, I never even saw another buck on that property. Another lesson learned is when conditions change, so should your bowhunting tactics and strategies. Remember, development, land use and crop rotation can all alter the habits and schedules of the deer you've been hunting.

In addition to identifying food sources, you need to identify bedding areas and travel routes in between. Because terrain and topography often influence travel routes of deer, you should also become familiar with those aspects of your hunting territory. Features that can influence deer movement include ridges, saddles, valleys, benches, draws, edges, fencerows, creeks, rivers, swamps, drainages, roads and buildings. Much has been written about patterning deer and the "funneling"



LOCATE preferred foods, such as these white oak acorns, and you'll find deer.

started hunting. I discovered that the deer were bedding in the cover close to the property owner's house and outbuildings. I soon determined that these deer would leave their bedding areas in the evening, and then they would follow their preferred routes to an adjacent property where a cornfield stood just beyond an open grass field. I placed my treestand in an ideal location to intercept the deer and the results were textbook. Over the next few seasons I arrowed three nice bucks there.

But then the adjacent property was sold, and the new owners put up a house and fenced in a huge yard for their dogs. Not only that, but they stopped planting corn. Of course I didn't realize all this until I had wasted most of that next season in what, until then, had become my guaranteed

effects of topography, but for the most part it still comes down to one basic principle: intercepting deer between their feeding and bedding areas.

It should also be noted that scouting for deer hasn't escaped our age of technology. Many bowhunters rely on electronic trail marking devices that can help determine the time of day when deer are using certain trails and passing certain checkpoints. Some of these devices work in tandem with cameras, so that you actually get a photograph of the deer and a record of the time it passed that specific point. Electronic scouting such as this can be expensive, and while some bowhunters swear by it, many traditionalists just can't be bothered.

Portable Global Positioning Systems (GPSs) are also finding favor with some

members of the bowhunting fraternity, especially those who are hunting remote or unfamiliar territories. These handheld units aren't any bigger than a cell phone and can be a convenient way to mark and find stands and waypoints in the field. Something about using orbiting satellites to hunt deer also rankles bowhunting purists, and many still prefer the old fashioned ways of marking stands and trails.

If you want to become intimately familiar with all the fine nuances and subtleties of your hunting area, you need to scout it during the winter, a few days after a light snow of no more than a few inches. Under these conditions even the untrained, less perceptive eye will notice tracks and both primary and secondary trails that might remain undetected under normal circumstances. File the locations of these trails away in your notebook — along with likely stand locations for the following year.

Research done before ever stepping into the woods can save time and legwork. It's never a bad idea to invest in topographical maps that can give a sense of the property before a hunter ever sets foot on it. Hunters can get a handle on where to look for deer by talking to the property owners, their children, or even the paperboy and mailman who, while making their early morning or late afternoon rounds, have noticed where the deer (including a buck or two) are hanging out. You may also be able to find some things out from other hunters who hunt the same property or adjacent properties. This, of course, can be a sensitive subject as some hunters may be reluctant to provide accurate information, especially if they're hunting the same bucks as you.

As every bowhunter I know is essentially a buck hunter, the rutting activities of bucks are of special interest to us all. Here in Pennsylvania the rut is usually in full swing in early November, during the last two weeks of our season. I said "usually" because it sometimes doesn't work out that way. This past year, for example, the

rut seemed to peak the week after our bow season had ended — at least here in the southeast where I hunt. Buck activity during the rut and pre-rut can be somewhat erratic, difficult to pattern and impossible to scout for during the traditional pre-season.

However, if you've been scouting year-round, you already have some idea where the bucks in your area might range during the rut. This can be determined from rubs, rub lines and primary scrapes. It's been my experience that bucks mark their territories with rubs and, later, scrapes in approximately the same locations every season. If there was a primary scrape under that maple branch by the old logging road last year, I'll expect one to appear in the same vicinity this fall, courtesy of the same buck — or maybe one of his competitors or offspring.

I also have a theory that during the rut bucks tend to seek out certain open areas that might be labeled "rutting arenas," where they congregate to mark their territories, leave scent, check out the competition and knock antlers. I base this on my observations of buck behavior that I've made in late October and early November.

For many years I've hunted the edges of a horse pasture that is surrounded by heavy cover laced with deer trails that lead into the pasture at various and sundry points. There have been certain evenings when as many as four or five different bucks have appeared in that pasture. They were not feeding but just roaming and looking around and, when the opportunity arose, confronting each other with stares, stand-offs and an occasional butting of antlers. Under these circumstances, bucks are extraordinarily susceptible to grunting efforts. One evening I grunted four different bucks within bow range, but couldn't shoot because I had filled my buck tag a week before on a small 7-point. This particular "rutting arena" doesn't appear this active every year, but it's been active often enough



BEDS, trails and tracks all provide significant clues to the habits and patterns of the deer you're scouting.

to make it one of my top choices for hunting the rut. If you discover one of these arenas, file it away in your notebook and plan to return in future seasons.

While most hunters don't think of spring as a time to scout for deer, a serious walk in the woods during this time can sometimes provide insight into the deer in your area. Physical sightings of these deer during the early spring, before the lush vegetation of early summer begins to take over, can give you some sense of how well the animals have weathered the winter. If you're really lucky you may even find some antler sheds that could point you toward that trophy buck next fall. And speaking of luck, no matter how much scouting we do, it seems we're always at the mercy of luck, fate, chance, providence, or call it what you will, when it comes to being a successful bowhunter.

I hunted hard all last season and never tagged a buck. Part of the problem was that during the season a friend of mine invited me to hunt in her backyard where she assured me she and her neighbors were overrun with deer. I didn't really have a chance to scout the property, but I figured I might still be able to fill one of my doe tags. On the second evening I hunted there, I

grunted in one of the biggest bucks I've ever seen. The wide-racked bruiser waded through the carpet of dead leaves like a big steer. By the time he offered a broadside shot at slightly more than 20 yards, I was ready. Or at least I thought I was.

An unseen branch deflected my shot, and my arrow sailed beneath and behind the buck. Had my treestand been just an inch higher or lower, or if I had waited for the deer to take one more step, that trophy would have been mine. I don't believe I've ever felt more distressed about missing a deer than I did that day. I committed myself to hunting that monster for most of the rest of the season. Unfortunately, I had permission to hunt only that 2-acre plot of land. The adjoining woodlands were heavily posted, preventing me from doing any significant or viable scouting. My only hope was that the buck would come back to the same spot, or once again succumb to my grunting efforts. I never saw him again, despite the fact that I invested the better part of the rest of my season there. Finally accepting the futility of hunting that tiny 2-acre plot, I returned to another property that I had thoroughly scouted.

As it turned out, I passed up a little 3-point buck the final week of the season. That was the last chance I would have. I hunted the final Friday of the regular archery season, and just before quitting time I heard something sneaking through the woods behind me. I turned around in time to see a black cat. As I said, luck, both good and bad, can undercut a year's worth of preparation and scouting. And here I had a black cat crossing my path on Friday the 13th. I got the message, and I guess you could say it put an exclamation mark on my season.

Of course I was discouraged, but by the following week I found myself scouting for the late season and for this coming year. After all, I hadn't forgotten that, depending upon how you look at it, it's always the pre-season. And the best time to scout is always right now. □

From the .22 rimfire long rifle cartridge to the .19 Calhoun, who knows what the future holds for . . .

Factory and Wildcat Varmint Cartridges

THE OLD .22 Hornet is still the best groundhog cartridge on the market. I've used one since 1935, and for shots up to 225 yards, it's the best," said a veteran hunter and shooter.

That's a pretty strong statement about the tiny Hornet, which made its appearance in 1930. It's also a questionable statement when you consider that literally every other varmint cartridge offers better ballistics. This raises the question of why a

hunter would make such a statement when many other varmint cartridges are better ballistically.

I guess it's only human nature to get carried away by our own shooting beliefs, even if they can't be ballistically substantiated. The old hunter undoubtedly was a dyed-in-the-wool Hornet fan. His woodchuck hunting career started with the .22 rimfire, a cartridge that reigned supreme in the varmint realm long before the advent of the Hornet. In that era, stepping up from a .22 rimfire long rifle cartridge to the centerfire Hornet was substantial. It's easy to understand why the sizzling 2,600 plus fps of the Hornet would impress a dedicated varmint hunter.

Today there are quite a few outstanding varmint cartridges that are better than the Hornet in many respects, but the tiny cartridge still has



IT'S REASONABLE to assume the future will give birth to other wildcat and factory varmint cartridges. Perhaps the 19-caliber Calhoun will do in the 21st century what the .222 Remington did in the 20th.

a strong following. And that following is likely to grow, now that the .22 Hornet can be wildcatted to the 19-caliber Calhoon, which generates muzzle velocities up to 3,400 fps when using Calhoon's 32-grain 19-caliber bullet.

Because the history of the Hornet — introduced by Colonel Townsend Whelen — is well known, I'll just say that its impact on the varmint hunting clan was more than just significant. The Hornet ushered in the sport of long range varmint shooting. It may also claim the distinction of arousing an interest in wildcatting (normally necking down larger diameter cartridges to accept smaller diameter bullets.) The fencerow hunter who took his shots at 25 yards with an open sight .22 rimfire would be replaced by the pasture field varmint hunter using a scoped .22 Hornet for shots far beyond the effective range of the little rimfire or even the more powerful .25-20. The Hornet gave varmint hunting a new look.

It would be unfair not to mention the .220 Swift. Even though it had a short life span as a production chambering, it is now getting a second look by long range varmint shooters. With its blistering velocity of 4,000 fps, it puts 400-yard shots within the grasp of seasoned riflemen. Instead of being welcomed with open arms, though, the Swift's high velocity earned it the reputation as a barrel burner, throat scorcher and case stretcher. That wasn't completely true, but these claims killed the Swift. Cutting down the powder charge slightly would have reduced the Swift's high pressure and extended case throat life considerably.

During the gas light era, varmint hunters were interested in small caliber cartridges. One of the oldest wildcat cartridges is the .25 Neidner (now the Remington .25-06), which was made simply by necking down a .30-06 case to accept a 25-caliber bullet. It retains the 17-degree, 30-minute shoulder angle of the .30-06. After the advent of the Hornet, wildcatting shifted into high gear. The .22-250

Varmint came to life by necking down the Savage .250-3000 to 22-caliber. The .219 Donaldson Wasp started out by shortening a .219 Zipper case and blowing out the shoulder angle. The .243 Rockchucker was derived from a .30-06 case shortened and necked down to accept a 6mm bullet.

There wasn't a shortage of good varmint cartridges, but there was a shortage of varmint hunters. That changed when Remington introduced the .222 Remington in 1950. Unlike the wildcats that were made from other factory cases, the .222 is not based on any other cartridge; it's of original design, and it took the shooting world by storm. Its inherent accuracy makes it ideal for either benchrest competition or varmint hunting. Its effective range in the pasture fields is 250-275 yards.

At the same time the accuracy of the .222 Remington was being proclaimed, handloading was receiving a lot of exposure across the nation. Because the .222 is easy to reload, it was only natural that a .222 and a reloading press made a perfect marriage. The varmint hunter's ranks began to swell as thousands of new handloading converts discovered the accuracy of the new cartridge and the challenge of long range varmint shooting.

The long range accuracy potential of the .222 Remington demanded a scope, and this set the stage for a new sport — group shooting. No longer would any object suffice as a target; the scenario changed to 5- or 10-shot groups at paper targets from a benchrest at 100 to 200 yards. Accuracy was now a product of controlled shooting, pitting the shooter, handloaded ammo and the rifle against the elements. Varmint hunting was upgraded to a recognized sport, and rifle manufacturers, scope builders and bullet makers wasted little time in getting involved.

The 6mm cartridge had been around for a long time, but the introduction of Winchester's .243 and Remington's .244 captured a lot of attention. These two cartridges, along with the Weatherby .240

Magnum, have pretty much ruled the 6mm realm. The wildcat list of 6mms is nearly mind-boggling. Strange names such as the .240 Madame, 6mm HLS, 6mm/. 30/30, 6mm Donaldson International, .240 Cobra, 6mm Lee Navy and the .240 Page Super Pooper came from wildcatters of the past.

Two new entries, the 6mmPPC and the 6mmBr Remington, are not only being used extensively for benchrest shooting, each is also a highly accurate varmint stopper out to 275 yards.

Earlier I mentioned the 19-caliber Calhoon. To the best of my knowledge, the 19-caliber has not been experimented with on a major scale. At least, it hasn't been given much exposure. Because I haven't tested this caliber, I won't get involved in all the details. James Calhoon from Harve, Montana, offers the 19-caliber in two cartridges in a re-barrel kit form that includes a match grade (stainless steel or chrome moly) chambered barrel that is not threaded, along with two Dewey bore brushes, Bonanza "BR" loading dies and 100 Calhoon bullets. A gunsmith can thread the barrel to the owner's action.

The first cartridge is the .19 Calhoon, which is a .22 Hornet necked down to accept the 19-caliber series of Calhoon bullets (32, 36, 40 and 44 grains), and the second is the .19-223 Calhoon. The .19 Calhoon barrel can be threaded for any Hornet action. The .19-223 can be threaded for any 3/8-inch bolt face (.222, .223, etc). The case is made by running a .223 case through the Bonanza "BR" dies. Calhoon claims the .19-223 has a case capacity of the .222 Magnum and, with his 32-grain bullet, the velocity of a .220 Swift. It sounds interesting.

In a previous article I talked about the controversy that still exists between the 6mm Remington and the .243 Winchester. Remington introduced the .244 Remington with a 1 in 12-inch twist basically as a varmint cartridge. This twist is a bit slow to stabilize bullet weights running

from 90 grains and up, especially long spire point bullets. However, it's acceptable for bullet weights running down to 60 grains. That fact was never brought to light, as I recall. The cry was that the .244 would not stabilize its bullets, and Remington finally discontinued the .244 around 1963. From that point on, Remington used a 1 in 9-inch twist and renamed the cartridge the 6mm Remington.

The .240 Weatherby Magnum is the most powerful commercially loaded 6mm. It can toss a 100-grain slug about 300 fps faster than the 6mm or the .243. The .240 case head is the same as the .30-06, and it has nearly the same capacity. The case is belted and boasts Weatherby's double radius shoulder.

The .30-06 case has fostered a host of both factory and wildcat offspring. The Winchester .270 is a .30-06 case necked down. So is the Remington .25-06. In the wildcat line, the list is long. P. O. Ackley's famous .228 Ackley Magnum, .243-06 and the recently standardized Remington .35 Whelen, which is a .30-06 case necked up to accept a 357-caliber bullet. The old .30-06 has an impressive past and will continue to make waves as a hunting cartridge for years to come.

Let me assure you that these cartridges are not the only important rungs in the long ladder of varmint cartridge development. There are others that have made an impact on the varmint hunting clan, but the ones covered here are responsible for changing the way we hunt and shoot. It's reasonable to assume the future will give birth to other wildcat and factory varmint cartridges. Perhaps the 19-caliber Calhoon will do in the 21st century what the .222 Remington did in the 20th.

The tinkering minds of wildcatters and cartridge developers are constantly at work. Right now someone may be thinking about how to neck down a 6mm BR Remington case to a 14-caliber. Sounds far-fetched? Might be, but it also might be a top competitor by 2025. □

In the Wind

By Bob D'Angelo

Only four firearms related incidents occurred during New Hampshire's 1997 hunting seasons. This tied the all-time record, which occurred in 1995. The hunting incident rate continues to fall, even though the number of licensed hunters remains approximately the same. Reasons for the decline can be attributed to the increased voluntary use of hunter orange clothing, and the efforts of volunteers in the hunter education program for the past 35 years.

To curb growing resident flocks of Canada geese, Michigan held the first ever September goose season in 1986. The following year Illinois and Minnesota added early seasons. The combined harvest for all three states during the 1987 season totaled 22,000 birds. In 1997, September hunters in 30 states took 419,000 Canada geese.

Twenty-five turkeys from New York were released north of Georgian Bay near Sudbury, Ontario, last winter. The release marks the second time wild turkeys have been relocated from the U.S. to Ontario.

Efforts are underway to pass legislation that would establish a mourning dove hunting season in Iowa. The state has an estimated population of 13 million doves, and is one of only two states west of the Mississippi (Minnesota is the other) that do not have a hunting season for the birds. Of the 48 states that have dove populations, 38 currently permit hunting.

Nearly 55,000 hunters took 23,200 elk in Wyoming in 1997. Nonresidents experienced a 51 percent success rate and residents 41.

A mysterious disease that has killed bald eagles and American coots in southwest Arkansas may now be present in two other states, according to wildlife disease specialists at the U.S. Geological Survey's National Wildlife Health Center in Madison, Wisconsin. Coot deaths in North Carolina and Georgia have been linked to this disease, which affects the brain and central nervous system. During the winters of 1994 and 1996, this disease killed at least 55 bald eagles in southwestern Arkansas, along with an unknown number of coots.

Wood ducks make up 75 percent of the harvest during the early 4-day waterfowl season held each October in Virginia.

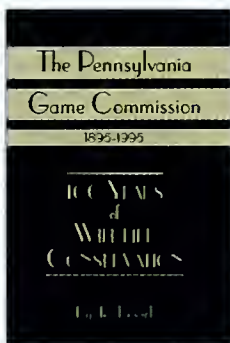
A record 13,251 gobblers — nearly seven percent more than in 1997 — were taken in Ohio during the 1998 spring season.

Since 1986 the number of woman hunters has doubled to approximately 2.6 million — 15 percent of all hunters.

Answers: TONUMINA AULREL
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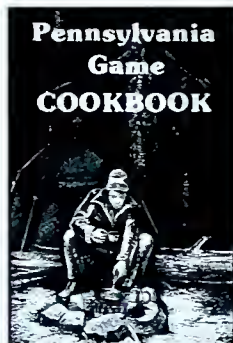
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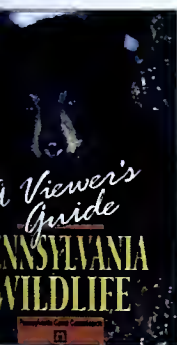
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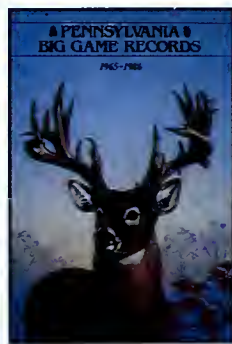


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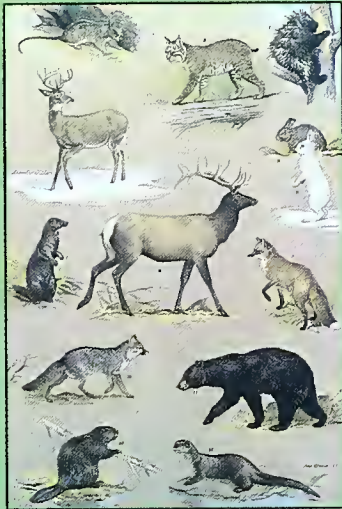
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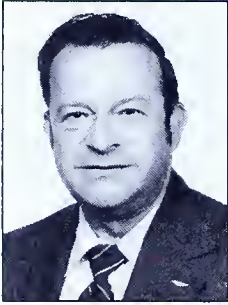


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Farewell Remarks

Donald C. Madl

PGC Executive Director



ON APRIL 30 I ended my 30-plus-year career with this agency. Retirement is something I've looked forward to, yet it truly saddens me. Retirement paves the way for me to spend more time with my family, but it also means I'll be walking away from what has been a big part of my life for a long, long time.

Few people spend their lives doing a job they truly enjoy such as I have. I'll never forget the night patrols, the sports shows, fellow officers and hunters. It's hard to express in words what this job has meant to me. But rest assured, it's been eventful, enlightening and exhilarating. If I had to do it all over again, I'd happily take the same path. What other outfit allows you to be a warden, a pilot, a wildlife rescuer and an executive officer over the course of your career?

I've seen considerable change in my years with the Game Commission. When I came on board there were just a few eagles in the state; the Game Commission was headquartered downtown in Harrisburg's South Office Building; Rachel Carson had not yet written *Silent Spring*; and deer was not even close to being a four-letter word in many suburban areas. My, how things have changed.

Pennsylvania has more eagles now than at any other time in the 20th century, thanks to the Game Commission. The work, which I was lucky enough to be a part of, began in 1983, thanks to financial assistance from the Richard King Mellon Foundation. Over seven years 88 eaglets were taken from their nests in Saskatchewan, raised in Pennsylvania, and then released into the wild. As a result, the state's nesting eagle population today numbers nearly 40 pairs.

The eagle's comeback was made possible by Pennsylvania's environmental awakening in the 1960s and '70s, when the commonwealth underwent a slow but amazing cleansing as a result of pollution reform laws, laws the Game Commission often helped enforce. I dare say that no other time in Pennsylvania history has witnessed as much conservation betterment and natural resource protection. It was an eye-opener to witness and a privilege to be a part of.

The Game Commission's role in conservation has continued to expand over the past 30 years. As a result, its mission is broader and more refined, and its workforce is more diversified. No longer is the agency stocking rabbits from the Midwest, or turkeys and ducks. Nor do we pay bounties on predators, or work out of a leased building. Our headquarters today is a splendid building constructed with hunting license dollars.

One thing that hasn't changed is that deer still receive the lion's share of attention. Nothing on the outdoors scene seems to motivate and mobilize Pennsylvanians more than white-tailed. Deer are one of our biggest success stories and biggest headaches. They are proof that you can have too much of a good thing, but they also serve as a

Continued on page 46.

letters

Editor:

I've been a *Game News* reader for five years, and I'm currently serving in the Navy, stationed in Japan. *Game News* is great for keeping my hunting spirit alive while being stationed so far away from home. I think the February issue was the best ever. "Dan's Buck" and "Nahini: Beyond the Hunger Moon" were excellent, and the historical perspective of "Anton's Wilderness" gave me a new appreciation for Pennsylvania history.

E.M. FORSYTHE III
TOKYO, JAPAN

Editor:

Here's a note of concern. We have well over a million hunters in Pennsylvania, yet there are only 2½ million members in the NRA nationwide. The NRA is fighting for our Second Amendment rights daily and trying to keep our Constitution from being destroyed. Please, consider becoming a member.

Secondly, register to vote and then vote. I enjoy our sport and love our country. Help me defend them both.

J. WHITECOMB
YORK

Editor:

I am a sergeant in the Marine Corps currently deployed in the Mediterranean Sea, and my father has been sending me *Game News*. Your May '98 issue had a few stories about father/son hunts, and they brought back many good memories that I haven't had

a chance to rekindle lately. If it wasn't for the great job the Game Commission is doing, such outings would not be possible.

C.J. WILLENBECHER,
Camp Lejeune, NC

Editor:

Last January we had more than 100 deer in our field. They came from our neighbors' land, which is posted. Come summer and fall, though, they will be eating our hay and corn. We don't know the answer, but posting is the problem.

S. & C. SCHMUCK,
ROCKWOOD

Editor:

Thanks for sending *Game News* to our library. Our students really appreciate this magazine, and at times use some of the articles for references for reports.

Many of our staff and high school students are hunters. The examples and experiences of others are exciting to read about.

R. B. SCHMUCK,
ADMINISTRATOR
RED LION CHRISTIAN
SCHOOL
RED LION

Editor:

In your March issue, I was pleased to read about the Ruffed Grouse Society and to see that it supports habitat improvement for grouse and woodcock. I'm concerned

about both of these birds, and would like to thank all the men and women who are in RGS for the excellent job they're doing.

G. THIMONS,
WARREN

Editor:

In a recent *Game News* there was an article about hunting woodchucks in the spring. I am an avid varmint hunter, but I feel they should not be hunted before June, after the young have left their dens. Woodchucks are grand game animals and should be treated as such.

J. DINO, JR.
CANNONBURG

Editor:

I've been a hunter for over 20 years, and I used to define a successful hunt by the amount of game I harvested. Now, though, I measure success by the sparkle in the eyes of the younger members of our gang.

T.S. BECKES
WESLEYVILLE

Please accept our thanks to all of you who wrote us about the suggested hunting season changes offered by Commissioner Dunkle and covered in the April issue. None of your responses are printed here, but they are all being compiled and will be reported on later. Your input is appreciated. — Ed.

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**

Our Native American Link

By Seth P. Cassell

IT HAS often been said that we share some sort of “genetic link” with our hunting and gathering ancestors — a link so convincing and powerful that it summons us from our artificial, civilized world and into the woods to hunt and be an active player in the cycle of the natural world.

To American sportsmen, no other link holds tighter than the one forged with the original hunters of the New World, the Native Americans. We hunt many of the same species, tramp through the same marshes and clamber up the same steep mountains they once did. And every once in a while we find an arrowhead in a freshly plowed field — perhaps while hunting — that reminds us that the link is undeniable.

Indeed, we share many similarities with the original hunters of the continent, but many differences exist, too. Native Americans hunted to live; we hunt perhaps to remind us that we are alive and still linked to nature. As such, our hunting styles and tactics differ greatly from theirs.

Native Americans were not sport hunters like we are today. The amount of recreation they derived from the hunt wasn't a priority. It was killing enough game to ensure survival of the hunter, his family and village, something today's sportsmen can only imagine.

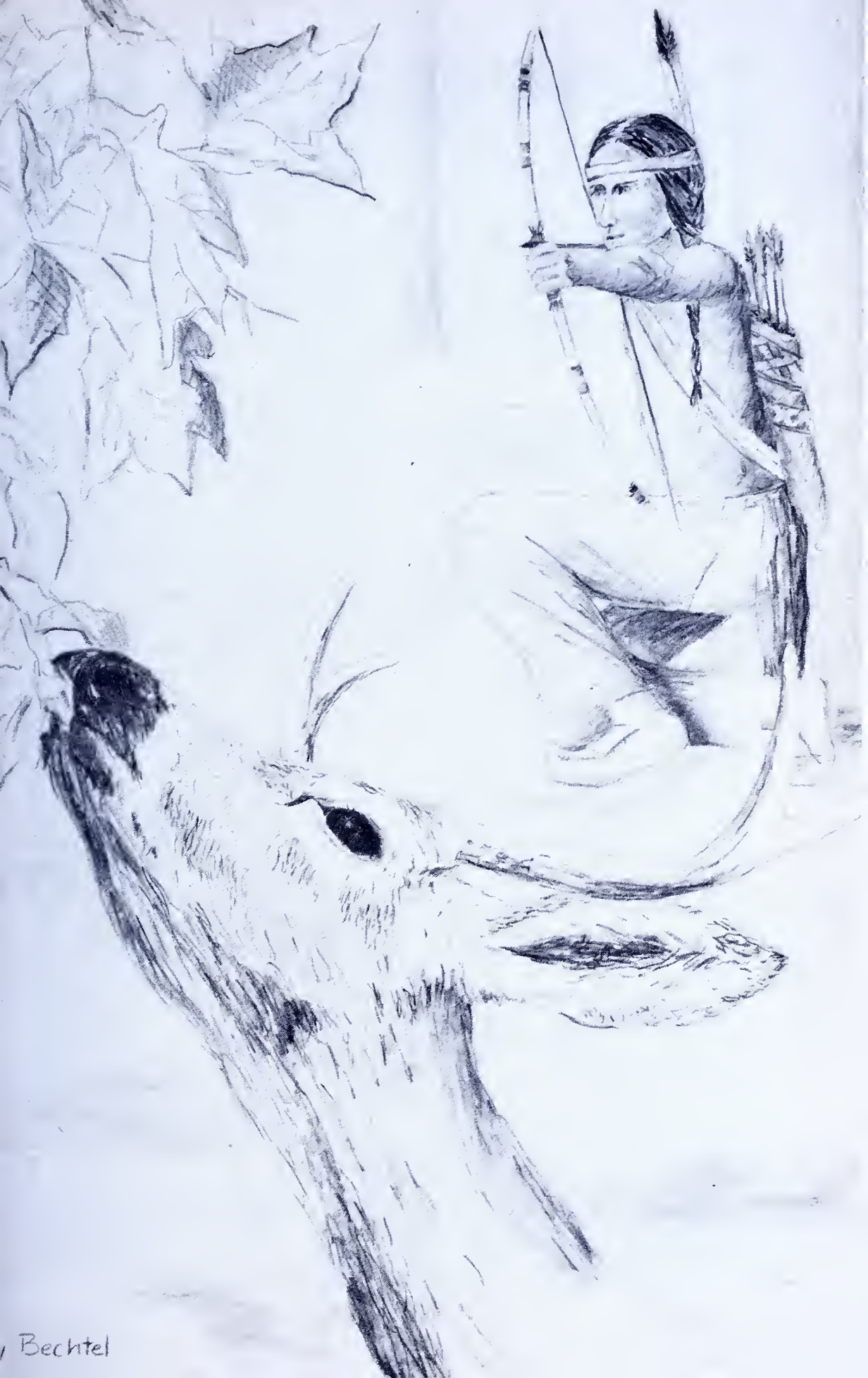
Native Americans depended on the land for survival, but sometimes

what it had to offer wasn't enough. They learned early on that each game animal preferred a certain habitat, so they learned to manipulate the land to enhance game populations. They were the continent's first wildlife managers.

Northeastern Native Americans frequently used fires to create deer habitat. After a few growing seasons, a clearing or burn would sprout new vegetation that would attract white-tailed deer and elk. These modified areas would provide a much higher carrying capacity, as we call it today, than the surrounding old-growth timber. With controlled burns and agriculture, Native Americans cleared away as much as 50 percent of the forest in some locations, quite a contrast to the pristine wilderness we often imagine during their time.

Many biologists estimate that in the 1700s there were about 8 to 10 deer per forested square mile of habitat, much lower than the 34 per forested square mile average that Pennsylvania hunters enjoy today. Deer densities were probably much higher a century or more earlier, before many northeastern Native Americans were infected with small pox, an epidemic that is said to have wiped out 40 to 50 percent of their population. When Native American communities dwindled, so did the need for deer management, and many burns reverted back into mature forest land that could not support as many deer.

Just as in some northern Pennsylvania small towns today, white-tailed deer influenced the economy of the Susquehannock,



Delaware and Iroquois nations that once inhabited Pennsylvania. And it wasn't necessarily the meat from a deer that was so sought after; it was often its precious hide. Although Native Americans certainly used the meat, before woven goods, deerskin was their primary source of clothing. Hides were used for everything from hats and moccasins to cordage for making tools and weapons. In those days the number of deer roaming the forest determined how many humans it could support.

Our vision of a light-footed Native American hunter slipping through the forest stalking a majestic buck with a long bow is mostly modern day romanticism. Indeed, Native Americans were master woodsmen and hunted alone on occasion, but these indigenous people survived by working together. Hunting was usually a tribal effort.

As such, Native Americans hunted cooperatively, like we do when we put on organized deer drives. But they were a little craftier than a dozen orange-clad hunters kicking around the brush. They'd often surround deer then set brush and grass on fire to push them to an area where other hunters

lurked. If they couldn't set the forest on fire, they'd encircle the deer with torches and slowly close in on them until they were within shooting range.

Loop snares carefully placed along trails, as well as spring pole snares were also used to capture deer, as were stake laden ground pits. And when heavy snow draped the ground, a small group of hunters could easily slip into a managed burn and roust a group of deer. With snowshoes (made from deer hide), they could easily run the deer to exhaustion.

Perhaps Frenchman Samuel de Champlain first described the most ingenious deer harvesting method used by northeastern Native Americans. An early explorer of the North Country, Champlain visited the Hurons near Lake Ontario in 1615 to secure trading relations for beaver pelts. In his journal he wrote about a deer fence that these Native Americans used to capture deer. "They made an enclosure in the form of a triangle, closed up on two sides and open on one," he wrote. "This enclosure was made of great stakes of wood closely pressed together, from eight to nine feet high, each of the sides being 1,500 paces long. At the extremity of this triangle there was a little enclosure, constantly diminishing in size, covered in part with boughs and with only an opening of five feet, about the width of a medium-sized door, into which the deer were to enter." According to Champlain, after 10 days of construction, the Hurons were ready to put their deer trap to use. Before the hunt, Native American hunters slipped through the woods a half-hour before daylight and formed a line a mile and a half

FRENCH explorer Samuel de Champlain noted in his journal in 1615 that the Huron tribe conducted elaborate deer drives.

long at the open end of the enclosure. The drivers spaced themselves about 80 paces apart, and each wielded sticks that they cracked together to form a marching cadence and to frighten the deer. Trying to escape their pursuers, the animals bounded along the constricting fence toward the enclosure. Drivers shouted wolf howls that echoed through the forest, further prodding the panic-stricken deer closer to their doom.

"The deer, hearing this frightful noise, are constrained to enter the retreat by the little opening, whither they are very hotly pursued by arrow shots," Champlain wrote.

The explorer watched the Hurons carry out their elaborate deer drive once every two days. After more than a month, these efficient hunters killed 120 deer. "Deer hunting," Champlain said, "was of all pursuits, if we except war, the most exciting to the Indians. It not only yielded the richest returns to their larder [supply of food] but it possessed the element of fascination, which has always given zest and inspiration to the sportsman."

But were these deer really whitetails? Champlain's drawings of the hunt show animals with swept-back antlers common to elk, not forward curving ones that whitetails sport. Furthermore, many scientists believe that prior to European settlement, eastern elk were just as or even more widespread than white-tailed deer. So the next time you read about a Native American killing a deer, think again — it might have been wapiti.

Although cooperative hunts were certainly the most successful, there's no doubt that Native Americans took game by hunting alone. Equipped with a long bow, an Indian would hunt close to burns and agricultural clearings, hoping to come upon anything he could fire his bow at, whether it be a bear, deer, elk, squirrel or grouse. Historical documents reveal that aboriginal hunters indeed used many of the tactics we use today. Decoys made out of dried hides were used to lure deer within bow

range. Some hunters even draped themselves in deerskins to sneak close enough to a group of animals to kill them.

Native Americans also used grunt tubes. They reportedly made them out of gourds and hollow branches. These resourceful hunters didn't stop with simulating adult deer, however. They imitated the high-pitched cry of a fawn by blowing on a blade of grass between their thumbs.

To reduce their scent, Native Americans were known to take precautions before and during the hunt, much as modern bowhunters do today. Bathing before a hunt was common, and some records indicate that they followed a specific diet.

Ishi, the last of the Yahi people and reportedly America's last wild Native American, came out of the northern California mountains in 1911. Everything about Ishi was studied extensively by anthropologists, including his hunting skills and methods. He didn't eat fish before venturing out to hunt for fear it would emit a foul odor that would repulse the sharp nose of a deer. Tobacco, before and during the chase, was definitely out.

"In approaching game, Ishi would skirt an entire mountain rather than come up on the wind sides" wrote Saxton Pope. "His observance to this rule was almost an obsession."

Just as centerfire rifles with telescopic scopes changed the face of modern deer hunting, so, too, did the evolution of the bow and arrow forever alter the course of human history. There is little argument that if it wasn't for the development of this simple yet effective tool — and an ample supply of chert (also known as flint) lying around to craft into cutting edges — the advancement of human beings would possibly have taken a quite different path.

Anthropologists have a difficult time discerning where and how long ago bows evolved, as the originals of these — unlike arrow and spearheads — didn't preserve well for posterity. Some anthropologists believe that these weapons didn't appear in North America until 2,000 years ago. Before that, native peoples used spears and atlatls (highly effective spear-throwing devices) for killing game.

In this part of the world, ash, oak, hickory and ironwood were common materials from which bows were crafted. The finished product was backed with sinew (animal tendons) to give the wood added strength and strung with the same or a thin piece of deer hide. Knocked with a good arrow and placed in capable hands, this simple tool enabled Native Americans to be effective hunters.

Deer and elk weren't the only sought after big game in the prehistoric north woods. Native Americans actively pursued black bears as well. In fact, they relied quite heavily on bear grease to adapt to their harsh environment. During winter they would smear it on their bodies to shield them from the biting cold winds. Then, during the summer, the grease could be used to fend off nagging insects.

Just as it is today, finding and killing a bruin was probably difficult. It can be assumed that many were killed after being flushed from burns and clearings during deer drives. But a much easier method was to infiltrate active bear dens and kill the unsuspecting animal. Any young that might be in the den would be taken back to

serve as village pets. Apparently, Native Americans commonly raised these bears, which could later be killed for food.

Sneaking into a den and killing a bear and robbing cubs is not only illegal today, but it would be considered an act of cowardly domination over nature. To native hunters who subsisted off the raw products of the forest, though, a denned bear was just another offering of the land that was there for their exploitation. For them, staying alive was the main concern, and they'd

do anything they could to achieve that end.

Black bears weren't the only animals disturbed from dens. Tucked away in their earthen lodges, beavers were safe from just about anything except two-legged hunters. The thickly furred pelt of this mammal drove the exploration of the continent, but for Native Americans, these rodents were a prime source of food and clothing. Deadfalls,

snare and nets were all used to capture them. More commonly, a group of hunters would surround a den and force the beavers from their hideouts. Once in the open, the animals were vulnerable to arrows, rocks, clubs and spears.

Some forms of hunting by Native Americans didn't even involve weapons. Back then, huge flocks of passenger pigeons — now extinct — were a common sight. During spring, hundreds of thousands of these birds would gather in colonial nesting sites. By chance, some of the young pigeons — called squabs — would fall helplessly to the ground. Considered a culinary delicacy, Indians would wait below with eager hands. If the immature birds weren't dropping on their own, gatherers would take a more proactive approach and cut down nesting trees.

Many say aboriginal hunters respected

the game they killed so deeply that they wouldn't waste even a morsel of their flesh and bones. Although they had a great deal of empathy for the fallen animal — which is evident from their giving water to freshly killed game or sprinkling tobacco over their

The author thanks Dean Snow, professor and head of Penn State University's Department of Anthropology, for his assistance in researching this article.

carcasses — they used every last bit of the animal because they had no other choice. They used what they had at the time, because they never knew when the chance would come again. Using every piece of the animal stemmed from their respect for living, not necessarily the animal's dying.

As modern hunters, we'll never know

what it's like to be down to one arrow and a fleeing deer at one end of the trail and a starving family at the other. And it's likely that many of the reliable hunting tactics that Native Americans used to stay alive will never be accepted in modern society as legal or ethical. Most of us will never acquire the skills (or have the need) to make a hunting bow out of a tree branch. A few paper bills and a quick trip to the sporting goods store can procure a far more effective hunting tool than Native Americans could ever imagine.

After all these years, about the only aspect of the hunt that has carried forward to modern time is the spirit of the chase — the life and death struggle between predator and prey. It is this essence of the hunt that serves as the ultimate link between our generations. ☐

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Day to Remember

By David H. Troxell

MY BROTHER Glenn called me one Friday morning in May 1970 and said, "Let's go groundhog hunting tomorrow?"

Glenn was itching to go because he had just built a rifle like mine. It was a .25-06, with a heavy 28-inch barrel that had a 1 in 10-inch twist and a 1 1/4-inch muzzle. It featured a Mauser singleshot action and a Bishop Model 4001 laminated stock. Topped with a Bausch & Lomb 6-24x scope, the outfit weighed 25 pounds. The weight of this rifle combined with the mild ammunition we loaded produced less than five pounds of recoil. Double set triggers were installed. To make them function, the shooter pulled the rear trigger with about three pounds of pull to set the mechanism inside. Then to fire the rifle, all it took was about two ounces of pull on the front trigger.

Both of our rifles would shoot quarter-inch, 5-shot groups at 100 yards. I handloaded all of our ammunition using the Sierra 117-grain bullet, Hodgdon H4831 powder, CCI 200 primers and military .30-06 brass cases necked down.

On an outing the previous summer I asked him to take a shot with my rifle. He lined up a chuck in the scope at about 150 yards and moved his head to the left, to look at the chuck without looking through the scope. He had kept enough tension on the trigger, however, that the rifle fired, killing the chuck. That convinced him that he had to have a rifle exactly like mine.

Saturday morning came and Glenn, who lives in Mifflinburg,

picked me up at my house in Williamsport. On our way we discussed where we would hunt. We had permission to hunt several prime farms.

Back then, woodchuck hunting was permitted in the mornings during spring gobbler season. We started about 9 o'clock. The sky was clear, the sun was shining and the grass was just beginning to turn green. The conditions were near perfect. There was no wind, no mirage, and the winter snow had flattened much of the taller dead grass.

Pulling into the farm we spotted at least eight chucks out in a pasture. We spread out a piece of canvas on the ground, then placed my rifle on a tripod that I had built to accommodate the flat 5-inch forearm.

Back then we took turns at each spot, with only one rifle being carried from the station wagon. When it was one shooter's turn the other would spot with binoculars to call the shots. I shot nine chucks in that pasture. Some were down along the woods, some across the tractor road that ran down the middle of the field, and some were in the field beyond the pasture. Three were taken at about 150 yards. Two were a little more than 200 yards away; two were more than 300 yards; and the other two were more than 400 yards away.

We don't try to eliminate all the chucks in a field. We like to leave some for the following year, and there were at least six remaining in that field when we drove away.

We moved to another farm, and it was Glenn's turn to shoot. After spotting a chuck in a far fencerow, Glenn got into position. I estimated it to be 300 yards away. He shot that one, and then I spotted



one farther out to our left, at an estimated 400 yards. Glenn adjusted his scope then fired, adding his second chuck. I then spotted one still farther out to our left, up on a bank beyond the fencerow. I estimated it to be 500 yards. Glenn settled in and shot it. Just as Glenn shot, another chuck sat up at 300 yards. He shot that one, too. We waited a few seconds, and another chuck ran a few steps and stood up at 400 yards. Glenn shot his fifth chuck without getting up off the ground, and he was loading his singleshoot rifle as fast as he could work the bolt. We often talk about those five shots that day.

We went to still another farm, up on a ridge, to fields that were back off the road.

The farmer had told us there were many holes there, and because they were on a sidehill, he was afraid of upsetting his tractor and other machinery. We had the perfect set up. There weren't any buildings or livestock within a mile, and shooting into a bank, we had no worries about ricochets.

My turn to shoot, I set up my rifle on my tripod and started shooting. The bank was quite steep in places, and after hitting the chucks with the .25-06 they rolled down the hill. I took 15 chucks from those fields before lunch. By the way, my brother bought lunch because he had said I wouldn't hit every chuck I shot at. He kept forgetting that my three sons tell people, "Our dad isn't the best shot in the county, but we don't know anyone any better."

After lunch it was Glenn's turn to

lie on the canvas. On another farm we found several hillside fields that were not pastured, nor had they been farmed the previous year. Chucks here could not be seen the summer before, because of the high grass and weeds. But now, the cover flat from the winter snow, the groundhog holes were quite visible. We saw about 10 chucks in this field and Glenn got five. By turning to his right, he got three more in an adjacent field.

My brother and I have been hunting together since 1952, and we have most of our hunting spots named. We call one spot The Blanket Field, one Snowdrift Hill, another Lone Tree Field and a new one I found that spring, Muffin Hills.

I had asked the owner of Muffin Hills

for permission to hunt, and

where most of the chucks could be found. He directed me up over a hill, out along a wooded fencerow, and past a big pine tree to a large pasture that had five rolling hills in it. It was all fenced in with barbed wire and used strictly for pasture, because the hills were so steep. These five rolling hills are like five muffins in a pan, and when you walked to the one "muffin" in the center, you could look out and down upon the other surrounding four "muffins."

When I told my brother about Muffin Hills, he couldn't wait to see the spot. After arriving, we walked to the center hill, where we could watch the chuck holes that ran down the side of it and a lot of holes in the other four hills. We decided to face in opposite directions, so we could both watch a set of hills. The chucks had scattered when we first appeared on top of the center hill but were back out soon. The grass was only three inches high, so the chucks could be easily seen.



For more than two hours we had outstanding shooting. When Glenn shot, chucks on my side of the hill would come out, and when I shot, chucks popped out on Glenn's hills. Most of the shots were around 200 yards, with the longest being 300. "Twenty-five chucks in two hours isn't bad," Glenn said. I couldn't argue with that but, reluctantly, we called it quits; we wanted to leave some chucks for future hunts.

Later on towards evening, at another spot, I spotted a chuck in a field across a valley that was later measured with a rangefinder to be more than 1,000 yards away. Looking across the valley I counted four fields between that chuck and me. I got into position and cranked up my scope to about 60 clicks of elevation. I shot and saw the dust fly in the second field. I raised the scope another 10 clicks and saw dust fly in the third field. I raised the scope up to 100 clicks and hit just 50 yards short of the chuck. All the while the chuck kept

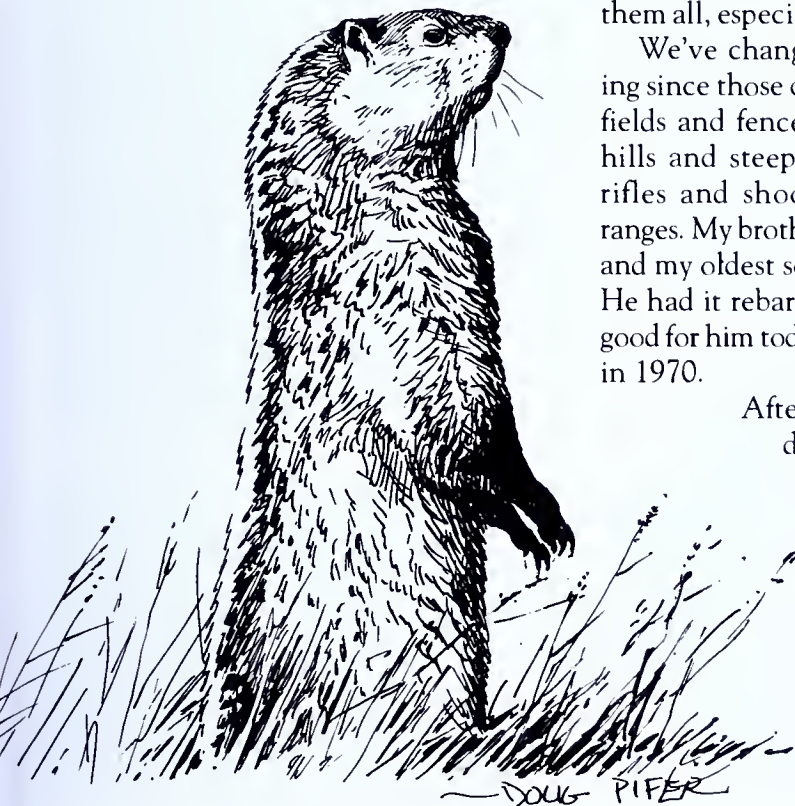
on feeding. I finally raised the scope as far as the clicks would go and fired. This time I hit about 10 feet short of the chuck and it ran into a hole.

It came right back out, though, and I held over the top of the chuck about twice the thickness of the crosshairs and fired. This time I hit just to the left of the critter and blamed the miss on a breeze that had just picked up. The next shot I held to the right, but the breeze had subsided, and I missed to the right. I waited until the grass stopped moving and fired again, this time connecting. That shot is still my longest ever made.

We made our last shot at sundown, giving us 70 chucks for the day. We keep a tally sheet, even today, as to how many we see, how many we shoot, how many we miss and at what distances we shoot at them. We saw 147 chucks that day (including the ones we saw running along the road when we drove from one farm to another) and missed only five. We don't get them all, especially at extreme ranges.

We've changed our style of hunting since those days. Now we walk the fields and fencerows of those rolling hills and steep valleys with sporter rifles and shoot chucks at shorter ranges. My brother sold his .25-06 rifle, and my oldest son now owns my rifle. He had it rebarreled, and it shoots as good for him today as it did for me back in 1970.

After that long, wonderful day we went to a restaurant, and over a steak dinner we talked about nearly every shot. We were tired but happy. That is one day we both will always remember. □



A Hunting Cabin

By Bob Butz

SOMEDAY I'll have a hunting cabin. I haven't decided exactly where, though. About the only thing I'm sure of is that it will be north of wherever I happen to be living at the time. North because I like the feeling the word conjures up. I like the idea of headin' north, driving half the night with the windows down, cold air filling the cab of the pickup and the radio blaring, up and down mountains and back roads, having to slow down only for the occasional deer standing in the middle of the road.

It'll be a tiny log cabin, where during the winter it will be hemmed in by snow, under the heavy white boughs of hemlock or cedar trees. A long lane will wind its way back through the woods for a mile or so, then

over a narrow bridge under which a stream flows that always contains a trout or two finning in the shallows.

I will come to this place every summer to fish in the creek and lake out back, and along about August I'll cut up enough firewood for the winter. No doubt I'll cut more than I'll need; swinging the ax will feel so good. And when I pull up in the drive in the middle of that cold winter night, the headlights will pan over all the wood I had cut — chords of it — and it'll feel good seeing it stacked up outside between the trees.

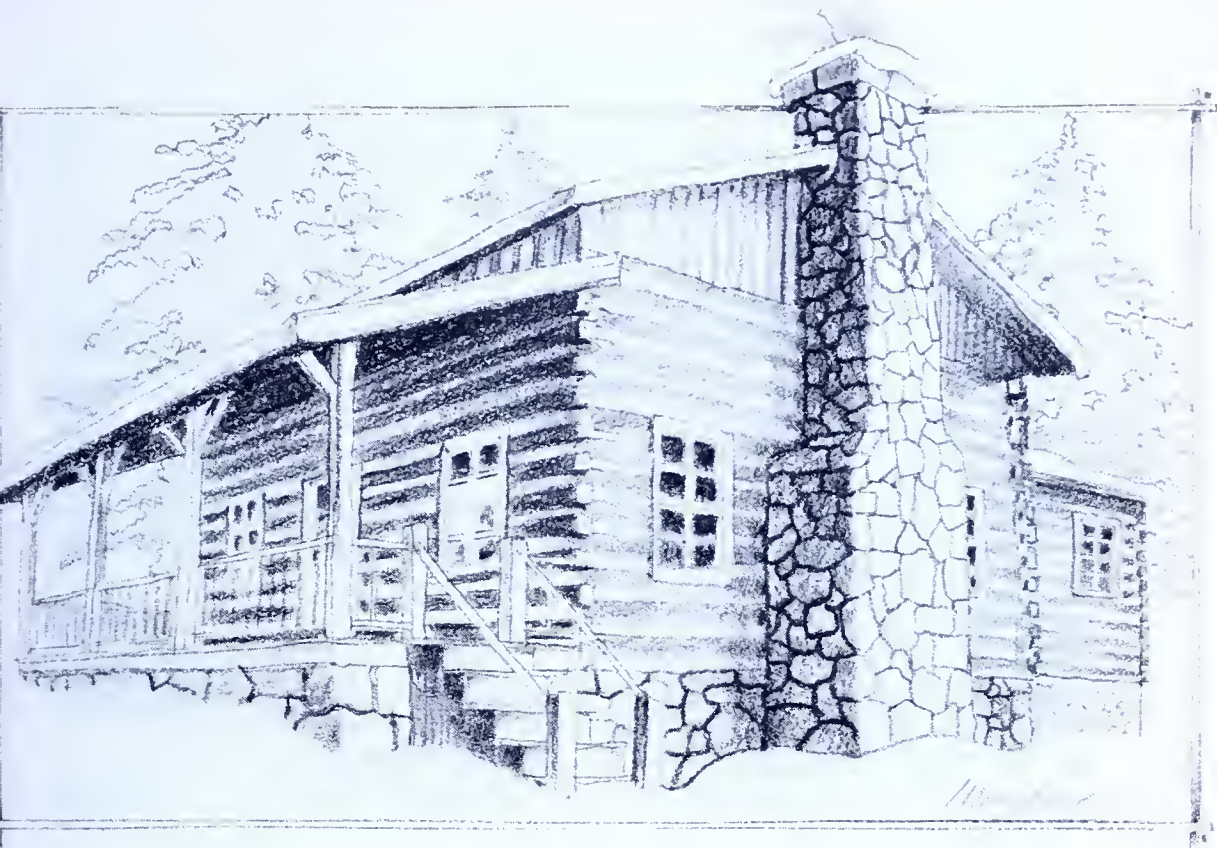
I'll sit there in the cab with the engine idling, double-checking the pockets of my heavy wool mackinaw for matches and the key to the padlock on the door. And pulling the flashlight out from under the seat, I'll step outside and take a deep breath of the cold night air. There will be a full moon shining as bright as the sun, and stars — so many stars — will make it seem like daytime.

Once up on the porch, I'll stomp the snow off my boots and inside find the lantern up on top of the stove. I'll start a fire, get my tin cup down from the sill, and pour myself a little drink. I'll drink it in front of the big window where, over the tops of the trees, I'll see the frozen lake, white as far as the eye can see.

I'll remember my gear out in the truck, but I'll take my time getting it. For luck, I'll hang my bow from the big deer antlers on the wall. Then I'll sit next to the fire and look at each arrow in my quiver, thumbing the edge of the broadheads, and touching up every one with a file, whether it needs it or not.

In the morning it will be snowing, snow piled up as high as the railing of the porch





when I step outside. I'll take the snowshoes down from the wall, place them beside the door with my daypack, arrows and bow. I'll stoke the fire with a log then sit for awhile in my chair by the window and sip my coffee. I'll probably think about the quiet of the place, the stillness. I'm a young man now, so no doubt I'd relish the solitude. But when I'm old, I think I'd rather share a place, and a morning such as this, with someone else. Perhaps the day may even come when I need someone there to hurry me along. I'm not talking about a woman, although I suppose it would be nice to look around and see the one I love still asleep

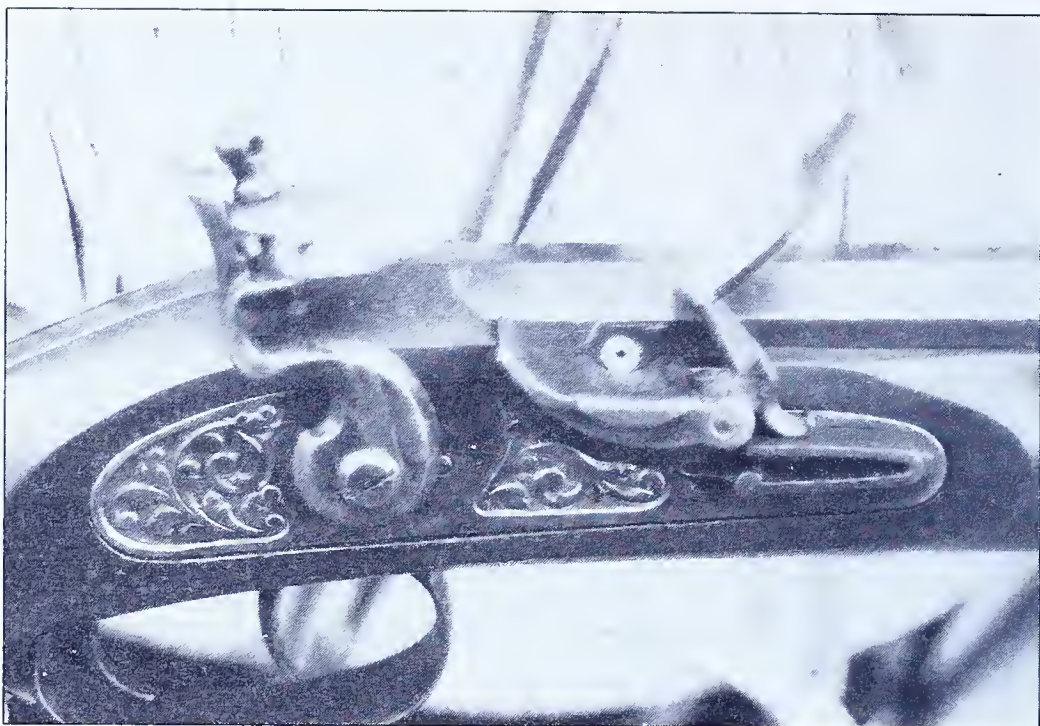
under the covers. I'm talking about a son, or a daughter, a giddy, slaphappy youngster who just can't wait to string up the bow and get out the door to go hunting.

I don't think I'll ever quit hunting, but I suspect someday the urge to kill game will not grip me as it does now. Surely the warmth of the cabin will feel better every season, and I will find it harder and harder to trek out into the cold. And when that day comes I hope there is someone to pass it all down to; I hope there is a place for that little one to go. □

COVER PAINTING BY MARIE GIRIO BRUMMETT

THE FOXHOUND is one of the oldest breeds of hounds. The breed derives from the staghound, the beagle and the southern (old English) hound. It has always been used for hunting foxes. They were brought to America from England in 1738. Seeing — and hearing — a pack of foxhounds seemingly flow over a rolling hill in farm country — especially in southeastern Pennsylvania, where fox hunting with hounds and horses is still popular — is sport fit for kings.

For information on purchasing a print, contact the artist at P.O. Box 7006, York, PA 17404.



HUNTING with a flintlock gives hunters an opportunity to experience what hunting was all about for our forefathers some 200 years ago. While the flintlock ignition system certainly meets the definition of primitive, it is a reliable and effective firearm in the hands of a person who understands the firearm and its limitations.

Become a Smokepole Expert

By Tom Mitchell

MY FIRST MUZZLELOADER hunt took place about two decades ago.

The morning dawned gray and cold. The day before, a mix of rain and sleet left a thin crust of ice on about eight inches of old snow.

Every step crunched loudly, making it impossible to get to my stand quietly. Nevertheless, I arrived well before first light. The woods were shrouded in a dense fog. The forecast promised warmer temperatures, and even in the predawn darkness I could feel the warm front moving in. The

recent storms had kept deer in their beds, but I hoped the approaching front would put them on the move.

My flintlock was loaded, and once on stand I primed the pan. Except for a few range sessions to sight it in, I didn't have much experience with the primitive firearm, but the few holes I had punched in paper made me confident I could make a clean kill if I got a shot. Shortly, a ghost-like form drifted through the trees on my left. I was surprised I saw it before I heard it softly and slowly crunching through the crusted snow.

To my delight, it had antlers. I didn't

know how many points, but I was thinking venison, not trophy. Another few steps would bring it into a small clearing about 30 yards in front of me. The set up seemed perfect.

As the buck stepped up to the clearing, it stopped on full alert, ears, eyes and nose working in unison, scanning for potential danger. After several moments, satisfied that all was clear, it began picking its way through the clearing.

I slipped the leather cover off the frizzen, letting it dangle from the leather thong that tied it to the trigger guard. I shouldered the rifle and eased the hammer from half cock to full cock. At the barely audible click, the buck froze, staring right at me. Ignoring the rear set-trigger, I squeezed the front trigger.

The sharp click of the flint scraping the frizzen sounded like a gunshot itself, but I kept the sights aligned just behind the buck's right shoulder. Everything seemed to go in slow motion. The fine powder in the pan belched a plume of white smoke, but the main charge in the barrel didn't go off. After what seemed like an eternity, the *Ka-Bloom* shattered the silence and a larger plume of white smoke drifted into oblivion. As for the buck, I caught a glimpse of his white rump melting into the dense cover he had emerged from. In that instant between the pan ignition and the main charge going off, the buck had turned tail and covered at least 10 yards. I didn't know it at the time, but I had made a common mistake for many beginning flintlock shooters; I overfilled the priming pan with powder.

If nothing else, that first, fruitless black powder hunt was a learning experience. The first lesson I learned was how to fill the pan so that when the trigger is pulled, the flintlock goes *boom*, not *pffft . . . boom*.

During the next year I learned other valuable lessons, some by experience, others by reading, and some from heeding the advice of more experienced shooters.

It is with these thoughts that I write this article, for the beginning muzzleloader shooter and those who are thinking of joining the ranks of black powder burners.

Rifle Selection

The first consideration is usually the selection of a firearm. If you wish to hunt during the black powder deer season, which traditionally begins on December 26 (unless that date falls on a Sunday), you are limited to a muzzleloader with flintlock ignition, a single barrel, and open sights. Guns must be 44 caliber or larger, and only lead roundball ammunition may be used.

Caliber Choice

The most common flintlock rifle calibers today are .45, .50, .54 and .58. A 45-caliber round ball weighs about 135 grains. Depending on the rifle used, a typical hunting load of FFFg black powder will give the ball a velocity of somewhere between 1,800 and 2,000 fps. I feel a 45-caliber is too light to make clean and consistent kills on deer, especially beyond 50 yards. I know one gentleman, though, who has accounted for at least four deer with his .45 flinter, all were one-shot kills.

For the 50-caliber, the common ball size is .490, which weighs 177 grains. Although smaller charges of FFFg powder may be used in 50-caliber arms, most shooters obtain optimum performance using the coarser grade FFg powder. The larger .54 and 58-calibers demand FFg. (The reason is that the finer FFFg powder will burn too hot and likely cause burn rings in the larger bores.)

The .50 and 54-calibers are by far the most popular choices for flintlock hunters, and for good reason. The extra weight and mass of the larger balls gives greater penetration and larger wound channels. A .530 diameter roundball for 54-caliber rifles weighs

about 225 grains and has the necessary power to make clean kills on larger game such as elk, caribou or moose, if a black powder hunt for these animals will ever be a possibility.

As for the .58-caliber, a number of experienced shooters have told me that the .58 lacks the fine accuracy of the smaller .50 and .54s. This could be due to the fact that many .58s are made to shoot conical bullets and, therefore, have a fast rifling twist (usually 1 in 24 or better). With round balls, the best accuracy is with rifles having a slower rate of twist, say 1 in 48 or, better yet, 1 in 66. Suffice it to say that for Pennsylvania, a .50 or .54-caliber rifle with a rate of twist from 1 in 48 to 1 in 66 is the ideal choice for a flintlock deer gun.

Patches

Lead round balls are .05 or .10 smaller than the actual bore diameter. A smaller ball is easier to load, especially after the bore has become fouled by several shots. The excess gap is taken up by a lubricated patch, which when placed on the muzzle before the ball, wraps itself around one end and sides of the ball as it is inserted down the muzzle.

The patch plays several roles. It seals (at least some of) the gases generated by the powder charge; it imparts spin to the ball, giving it accuracy; and, if properly lubricated, it helps reduce some of the inevitable fouling buildup from successive shots.

Most .50 and .54-caliber rifles with, respectively, a .490 or a .530 round ball, work well with a .015 thick patch. The manufacturer's instruction booklet will likely recommend the proper



POWDER MEASURE, powder flask, short ball starter, extra flints, along with a supply of balls and patches are some of the accoutrements necessary for shooting a flintlock. Tradition calls for these items to be carried in a possibles bag.

patch thickness and ball diameter, and powder charges, to be used with the particular firearm. Follow these recommendations. If you are new to muzzleloading, save experimenting with other patch sizes for times when shooting with experienced shooters.

Patch Lubes and Materials

A bewildering array of patch lubricants are on the market today. Our forefathers used either saliva or bear grease and whatever patch material they could find, and these worked at least most of the time. Today, modern technology has greatly improved patches and lubes, not to mention making the cleanup chore much easier, which in turn, contributes to longer barrel life.

Today's ready cut patches are made of either cotton or, in some cases, Irish linen. Never use patches made of nylon or any other synthetic materials. These can melt in the bore, and even after stringent cleaning, microscopic bits can remain imbedded in the rifling. These may hide traces of black powder's most corrosive component, potassium nitrate, which may lead to rusting and eventual pitting of the bore.

Commonly available patch lubes today promise that the shooter can fire repeated shots without swabbing the bore. More

importantly, they do not contain petroleum distillates, which react with potassium nitrate to promote rusting and pitting. Look for commercial lubes at any gun shop that sells black powder supplies. Crisco, olive oil and tallow may also be used as patch lube, but none are as effective as the modern commercial lubes.

Round Balls

Two types of round balls are commonly used, cast and swaged. Both types are pure lead. Adding alloys, such as tin or antimony, to muzzleloader fodder is a no-no for several reasons. One, the soft lead will take to the rifling easier, and two, because the steels used even in modern muzzleloaders are softer than the steel used in modern smokeless powder guns, adding alloys may damage a smokepole's bore. A third reason is that round balls, not having the velocity and kinetic energy of modern rifle bullets, kill by the ability of the soft lead to expand and create a large wound channel.

Swaged balls are made by such companies as Hornaday and Speer. Swaged balls offer consistent weights, which may offer slightly better accuracy, although excellent accuracy is obtained from cast balls as well. Cast lead balls, whether commercially cast or cast at home, have a sprue. A sprue is the flat spot left by the cutter plate on the mold. Whether to load with the sprue up or down has been hotly debated. Suffice it to say that as long as either method is followed consistently, there's no difference in accuracy. Loading a cast ball haphazard, with the sprue on one side, say, will affect accuracy. Most cast ball shooters keep the sprue up, so they can see what they're doing when loading.

Black Powder

All black powder sold for firearms today is designated according to the coarseness of the grains. There's FFFFg, FFFg, FFg and Fg granulations, with FFFFg being the finest and Fg the coarsest. The very fine FFFFg is used strictly for priming the pan of a flintlock, never for any other purpose.

FFFg is used in 45 caliber and smaller firearms. FFg is used in 50 caliber and larger rifles and in muzzleloading shotguns. (Fg may be used in some shotgun loads as well, and in blackpowder cannons.) A one-pound can of black powder contains 7,000 grains of powder. That means that a shooter should get 100 70-grain loads from a single can. Because no more than $2\frac{1}{2}$ to 3 grains of FFFFg powder is used to prime the pan, shooters can expect almost 2,400 shots from a single can of FFFFg — assuming the pan charge ignites the main charge in the barrel every time and none is spilled. Realistically, about 2,000 shots from a can of primer powder can be expected.

It's important to realize that black powder is measured by volume, not by weight. This is the most time-proven efficient and practical way to load a muzzleloader, on the range and in the field. Loads are poured into a measure. While not precise, this nevertheless gives accurate loads.

Currently two brands of black powder are available, Goex and Elephant. A few years ago Elephant announced that its powder formula had been improved to give higher velocities and also to have a lower carbon content. The latter is believed to reduce bore fouling and make cleanup easier. Muzzleloader shooters use both brands, although the American made Goex powder seems more popular.

Several black powder substitutes are on the market. Best known is Pyrodex. While Pyrodex is said to work well in percussion rifles and revolvers, it's not recommended for flintlocks, because it doesn't give consistent ignition.

My advice is that although black powder substitutes such as Pyrodex may be promoted by several large chain stores, do yourself a favor and buy real black powder.

Flints

The all-important flint is what starts the process of making a muzzleloader go off. Most shooters, especially the traditionalists, feel the best all-around flints today are the black English flints. English flints are hand knapped (rather than cut on a machine), and their popularity is based on reliability as well as tradition. There

New this fall is an early flintlock season for antlerless deer in the Special Regulations counties of Allegheny, Bucks, Chester, Delaware, Montgomery and Philadelphia. The season is November 18-20, and a county-specific antlerless deer license is required. Hunters no longer have to surrender their antlerless deer license applications when obtaining a muzzleloader license, and the deadline to apply for a muzzleloader license is now August 31. See page 37 for additional information on this early flintlock season.

are also French flints, imported and hand-knapped by only one man, master flint knapper Bob Winters of Sparta, Tennessee. Winters recommends that his French flints be used primarily for hunting, because they are a bit hard on frizzens. When it comes to hunting, there is no more reliable flint than the blond-colored French flints knapped by Winters, but for all around use, the English is hard to beat and commonly available.

Many factory flintlock rifles come with a machined agate stone. Much of the stone from which agate flints are cut comes from Brazil, and for some time many of these agates were cut in Germany by a man named Deiter Stiffer. Because of this, they were referred to as German agates. During the last two decades, however, agate flints have been made in Armstrong County, Pennsylvania, by Robert Nichol of Freeport. Nichol's agates have been used by the U.S. International Muzzleloading Team while par-

ticipating in world shoots sponsored by the Muzzleloaders Association International Committee. English flints, and Nichol's agate flints, are sold by most black powder specialty shops.

Flints do not spark. They create sparks by striking the frizzen and scraping off microscopic shards of steel. The friction created by this process causes the shards to glow yellow-hot, thus igniting the pan powder, which in turn, ignites the main powder charge in the breech. For this all to work, the flint must be sharp and the frizzen in good shape. Flints eventually lose their sharp edge and must be reknapped or replaced. After a period of time, the frizzen will also wear out — no longer throw sparks — and need to be replaced. A good frizzen should last for hun-

dreds of shots.

Installing a new flint can be a bit of an enigma for the novice shooter, but the technique is easy to master. Flints are held in place by a small piece of leather or lead, wrapped around the top, bottom and back edges of the flint. The top jaw is lowered by an adjusting screw and holds the flint fast, compressing the leather which, in turn, grips the flint. The flint must be positioned so it will strike the frizzen about one-third or so from the top, and follow through to the bottom. A flint installed correctly will throw a yellow-hot shower of sparks. When installing a new flint, place the flint in the jaws firmly, but yet loose so it can be moved with the fingers for the final adjustment. Care should be taken so that the inside edge of the flint does not strike the barrel as it travels to the bottom of the frizzen. It is also vital to select the proper size flint for the hammer. Most rifles take a 5/8-inch wide flint, but other common sizes are 1/2, 3/4 and 7/8 inches.

Next month we'll take a look at the loading process. □



Bob Steiner

FROM BIRDWATCHING and photography to ecotourism and nature study, our wildlife resources support more than 60,000 jobs, generating \$1.3 billion in salaries and wages, and more than \$160 million in state tax revenues, yet almost no general state funds are spent on protecting and managing those wildlife resources.

Reinvest in Wildlife

Jerry Hassinger

Supervisor, Wildlife Diversity Section

FEW BUSINESSES in Pennsylvania support more jobs than fish- and wildlife-related recreation: hunting, fishing and wildlife watching. The expenditures of those “crazy” wildlife watchers, for instance, support more jobs in this state than Bethlehem Steel (a Pennsylvania-based Fortune 500 firm) does nationwide. Wildlife is big business and it’s your business.

It’s been said wildlife generates more revenues (taxes, too!) with less public investment than any other resource. If this discrepancy continues, we’ll lose wildlife species, we’ll lose habitat, and we’ll lose important revenues. This proposal offers a strategy of public reinvestment in the future of wildlife and the jobs dependent on this resource. It’s based on the needs of wildlife and the public that uses this re-

source. And it challenges the state to legislate and implement a solution already being used by three other states.

“No taxation without representation”

Hunters, anglers and wildlife watchers (collectively, about 4 out every 10 adults in the state) have been paying hundreds of millions of dollars in state and federal taxes related to the pursuit of their recreational activities. In spite of this, no state tax dollars have ever been reinvested back to the Game Commission or the Fish & Boat Commission, the two agencies charged with the protection and management of these valuable resources.

Will crops continue to grow with-

out reinvesting in fertilizer? Are gasoline taxes earmarked for road construction and maintenance? The revenues from tree sales on public lands are returned to the agencies that manage these forests. So it's no leap in logic to conclude that a portion of state sales tax dollars generated by wildlife-associated recreation should be reinvested in wildlife conservation, education and recreation. It's good business and it's the right thing to do. Consider the following:

Wildlife is the peoples' resource. Last century the Supreme Court affirmed that wildlife belongs to you and me, and that our government is trustee of our wild heritage. Our 28-year-old environmental bill of rights is specific:

" . . . Pennsylvania's public natural resources [including wildlife] are the common property of all the people including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

Yet for nearly this entire century we seem to have forgotten that 1.7 million Pennsylvania sportsmen (hunters and anglers) are not "all the people." Wildlife conservation was and is virtually dependent upon the generosity and concern of a single interest group — sportsmen. So it should not be surprising that hunting and fishing license revenues have almost exclusively been devoted to the management of that 20 percent of all larger fish and wildlife species called "game." In effect, when it comes to the use and conservation of this state's wildlife, 7.6

The state budget should contain a line item for wildlife conservation, recreation and education. This annual, line item should be indexed to the amount of state taxes generated as a result of wildlife associated recreation. Such reinvestment is good business and it's the right thing to do.

million adult, non-sportsmen, including 2.2 million wildlife watchers, are without a direct link to supporting fish and wildlife conservation, recreation and education. Consequently, the economic umbrella (hunting and fishing license revenues) that has sheltered game species is not there for

the 80 percent of all wild vertebrate species that we disparagingly refer to as nongame. They are, as John Madson put it "Poor Cousins." And if these poor cousins are the source of many values (recreation is but one of them), they are also the source of 51 of the state's threatened and endangered vertebrate species.

"Poor Cousins"

There are more than 11,000 small, wild animals collectively called invertebrates in Pennsylvania. They are the basic building blocks of ecosystems and the "gasoline" needed by larger species. Aside from a war waged on pest species, most invertebrates, even those that are endangered, have been neglected. No agency has been given authority for wild, terrestrial invertebrates. Of 519 native wild vertebrates found in Pennsylvania prior to settlement:

- 31 are extinct or no longer found in the state;
- 488 are currently wild residents; (400 are nongame species and 88 are game species);
- Of the nongame species, 29 percent need urgent attention including: 51 species that are now endangered or threatened and 63 candidate species that may become endangered or threatened.

Declining revenues, escalating costs

The future of our wildlife heritage is linked to the future of wildlife and quality

habitat. As environmental alterations for human purposes proceed — and short of outright habitat loss — wildlife is increasingly forced to use degraded habitats. This is resulting in a growing list of native species in decline. In turn, this drives up the cost of wildlife conservation, independent of Game or Fish and Boat Commission control, and in concert with public mandates to engage in expensive rescues of endangered species.

A random survey of more than 1,000 Pennsylvanians found that 94 percent thought that managing endangered species was an important program area for the Game Commission and Fish & Boat Commission. This was even more than the number that thought providing hunting and fishing opportunities were important program areas of the agencies.

Concurrently, wildlife management revenues supplied mainly by sportsmen are stable or declining. Some states are barely able to sustain their traditional fish and game management programs. Moreover, sportsmen alone cannot be expected to foot the bill for solutions to conservation problems largely created by other “publics.”

Let's follow the money to a legislative solution

We need to build on the foundation of

conservation paid for by sportsmen. The role of other Pennsylvanians must be enhanced. More importantly, they must be given fiscal representation by reinvesting a portion of their wildlife-related recreational tax dollar to conserve wildlife and to facilitate the sustainable use of this resource.

For a single year (1996), to hunt, fish and watch wildlife (e.g., bird feeding, ecotourism and outdoor photography) in Pennsylvania, 3.9 million adults (age 16+) spent more than \$2.26 billion. These wildlife-related recreation expenditures supported 61,450 jobs, \$1.3 billion in salaries and wages, \$163 million per year in state tax revenue, \$140 million per year in federal taxes, and had a \$4.7 billion ripple effect on the state economy.

Typically, the largest expenditures for wildlife-associated recreation are for travel and equipment. Excluding the costs of traveling, the two largest expenditures of wildlife watchers (in 1996) were the \$147 million dollars (sales tax = \$8.8 million) spent for bird food and the \$90 million (sales tax = \$5.4 million) spent on cameras and film.

Nature-related tourism is the fastest growing segment of the travel in-

\$\$ Wildlife: Big Business! \$\$

Americans spend more money on bird watching than they do on baseball. (National Wildlife)

More is spent annually in Pennsylvania for wildlife related recreation than the total national box office receipts of Star Wars, E.T., Jurassic Park and Titanic combined — the top grossing films in U.S. history. (USA Today)

The total spent annually for wildlife related recreation is almost three times greater than revenues from the state's annual corn harvest and beef production combined. (USDA National Agricultural Statistics)

Pennsylvania's hunters and anglers, by themselves, generate enough federal income tax dollars to nearly pay the entire U.S. Forest Service fish and wildlife budget.

The number of out-of-state visitors to Pennsylvania for watchable wildlife recreation nearly equals the population of Pittsburgh. (U.S. Bureau of Census as reported in the 1998 Information Please Almanac)

dustry. Seven of every 100 tourism-supported jobs in Pennsylvania are attributed to watchable wildlife recreation. (Source: U.S. Travel Data Center, Washington, D.C., survey) Visiting nonresidents engaged in watchable wildlife activities spent \$115.8 million in 1996. In the process, they contributed \$8.8 million to the state's tax coffer. This doesn't include the taxes paid by nonresident hunters and anglers.

Reinvestment legislation, it's important

There must be new money for wildlife-related conservation, education and recreation. This is a state and a national imperative. Three states, Ar-

kansas, Missouri and Virginia, have already come to grips with these needs by earmarking a portion of their sales tax revenues for wildlife conservation. Recently (October 1998), the federal government acknowledged the need for reinvesting in our wild heritage. Two bills were introduced, each with bipartisan support: (1) Conservation and Reinvestment Act of 1999, House of Representatives bill H.R. 701; and (2) Reinvestment and Environmental Restoration Act of 1999, Senate bill S. 25. If this legislation is passed in 1999, states would be eligible to share from \$321 to \$460 million for wildlife conservation and related recreation and education.

Roger Holmes, President of the International Association of Fish and Wildlife Agencies, speaking on behalf of state agencies across the nation said, "These funds will be used to prevent wildlife from becoming threatened or endangered by protecting habitats critical to their survival, doing needed research and population monitoring, providing wildlife recreational and educational opportunities, all of which will protect the country's rich wildlife heritage for future generations . . . these are all needs that the public has expressed strong support for but for which funds have been extremely limited and in some states even non-existent."

The Pennsylvania Game Commission and Fish and Boat Commission's share of these potential federal dollars will likely exceed \$10 million per year. However, there's a catch. To receive these dollars, the states will have to commit "matching" funds. Annually, Pennsylvania's wildlife agencies will have to "find" and collectively commit \$2 to \$4 million dollars in order to receive their full share of the federal allotment. Hunting and fishing license revenues should not be used for this "match."

Proposal

The "match" should be an annual general fund appropriation, a budgeted, line item indexed to the amount of state taxes

Your taxes do not pay for wildlife management in Pennsylvania

Management of Pennsylvania's wildlife and fish is entrusted to, respectively, the Game and Fish and Boat commissions. These agencies receive no state tax dollars. Their operations are almost entirely funded by sportsmen purchasing licenses to hunt and fish and by federal excise taxes on sport-related equipment.

Recognizing that some nongame species and wild plants were falling through the cracks, the legislature established the Wild Resource Conservation Fund and Board in 1982. Because the Fund is entirely dependent on the vagaries of donated money (income tax check-off and license plate revenues), the agencies by and large use these funds for short-term contracts of limited scope. Since 1982, the Game Commission and Fish & Boat Commission have never shared as much as a million dollars for annual contracts. Typically, each agency had about \$100,000 to work with in any one year. But this year there's nothing. Competing tax check-offs and license plates have reduced the Fund's income to a level barely capable of sustaining the state's wild plant program.

Economic impacts of wildlife-associated recreation in Pennsylvania.

	Hunting	Fishing	Wildlife Watching	Total
Retail Sales	\$757 mil.	\$650 mil.	\$859 mil.	\$2,266 mil.
Ripple Effect	\$1,567 mil.	\$1,340 mil.	\$1,812 mil.	\$4,719 mil.
Earnings	\$454 mil.	\$357 mil.	\$529 mil.	\$1,340 mil.
Jobs	20,243	16,667	24,530	61,440
Sales tax	\$38 mil.	\$39 mil.	\$48 mil.	\$125 mil.
State Income				
Tax	\$13 mil.	\$10 mil.	\$15 mil.	\$38 mil.
Federal Income				
Tax	\$48 mil.	\$37 mil.	\$55 mil.	\$140 mil.
Taxes used for Wildlife Conservation	\$ 0	\$ 0	\$ 0	\$ 0

generated by fishing, hunting and wildlife associated recreation as estimated by the most recent national survey of these activities by the U.S. Fish & Wildlife Service and the Bureau of Census. Such reinvestment is consistent with sound business practices and government's role as trustee of the wildlife resource. Look to the state of Virginia for precedent.

Example

In 1996 (the most recent national survey), wildlife-associated recreation accounted for the collection of Pennsylvania taxes in the amount of \$163 million dollars. Ten percent of this amount, \$16 million, would cover the required federal match. Additionally there would be revenues to purchase habitats critical to the welfare of both game and nongame species. Please understand, this is not a new tax or an additional tax. It's the annual dedication of a small portion of existing General

Funds, the amount of which is indexed (e.g. 10 percent) to the taxes collected on wildlife related income, and on food, lodging, supplies and equipment used by citizens participating in wildlife-associated recreational activities.

In 1996 Pennsylvanians spent all or parts of over 57 million days hunting, fishing and wildlife watching away from their homes. In the process, they spent \$2.5 billion dollars (including dollars spent in other states). This reflects our passion for wild things and wild places.

As we approach a new century, this passion, the values of wildlife, the increasing costs of wildlife conservation forced by humanized landscapes, and the birthrights of generations yet to come should be acknowledged with re-investment legislation. At long last this would enfranchise and engage all Pennsylvanians in the grand task of conserving our wildlife heritage. □

The basic data used in this report were obtained from the 1996 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. This survey is conducted every five years by the U.S. Fish & Wildlife Service and the U.S. Bureau of the Census. Based on these data, Southwick Associates provided an economic analysis including an estimation of the tax dollars generated as a result of wildlife-associated recreation.

UNFINISHED SYMPHONY

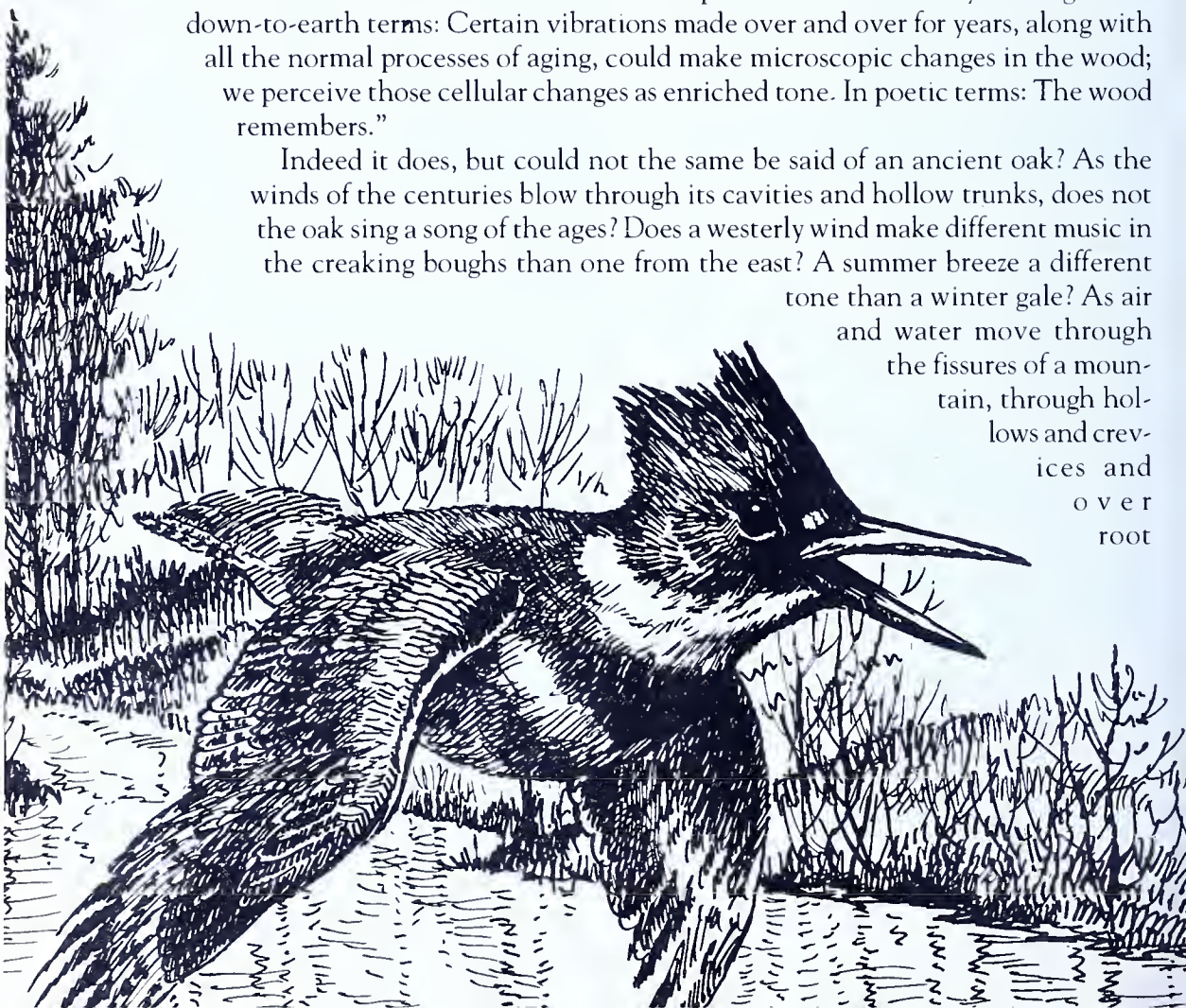
AT A RECENT spring concert of a symphony orchestra, I watched and listened as the musicians warmed up before the performance. Across the front of the stage, the strings: violas, cellos, violins (one of them being played by my daughter) and double bass. Behind them, the percussionists, the heartbeat of the orchestra, with various drums and cymbals, xylophone, hammers and glockenspiel. On the right, the woodwinds: clarinets, saxophones, oboes, bassoons and bird-like flutes. Finally, the gleaming brass of French horns, trumpets, trombones and tuba.

As the inspiring concert progressed, I recognized qualities in the music that resembled sounds from the natural world. Music is an abstract language, an extension of emotion and thought more pure than spoken words. We comprehend music with an inherent intelligence that spans cultures and time. Music is also a product of the living land, and it's no coincidence that instruments suggest the sounds of nature.

Author Diane Ackerman, in her noted book, *A Natural History of the Senses*, describes how the marvelous tonal qualities of a Stradivarius violin are due in part to a layer of volcanic ash called pozzolana applied between the varnish and wood; but its unique sound is more a result of age, design and craftsmanship. She writes that, "Many violinists and violin makers insist that violins grow into their beautiful throaty sounds, and that a violin played exquisitely for a long time eventually contains the exquisite sounds within itself. Somehow the wood keeps track of the robust lyrical flights. In down-to-earth terms: Certain vibrations made over and over for years, along with all the normal processes of aging, could make microscopic changes in the wood; we perceive those cellular changes as enriched tone. In poetic terms: The wood remembers."

Indeed it does, but could not the same be said of an ancient oak? As the winds of the centuries blow through its cavities and hollow trunks, does not the oak sing a song of the ages? Does a westerly wind make different music in the creaking boughs than one from the east? A summer breeze a different

tone than a winter gale? As air and water move through the fissures of a mountain, through hollows and crevices and over root



and rock, log and stump, through pines and shrubs and over fields, music is created. It is possible that one mountain sounds different than another, each performing a constant, subliminal earth song. Do urban citizens, removed from that music, subconsciously long for it and seek to replace it? This is music older than the rhythm of a beating heart, and stirs emotions as deeply as any overture. In the woods, listen beyond the obvious sounds and soon you will hear it. Many people relate how they enjoy the peaceful, trance-like state of staring from a mountaintop into

a void. I think in fact, they are actually listening to music long gone from their lives.

Much contributes to nature's opus: Grapevines, reeds and greenbriar rattle and snap, trees whine and screech, tall grasses hiss in a summer storm. Rain spatters, seeps gurgle, springs percolate, streams murmur, rivers roar, water drips and falls and splashes, waves lap and crash. Leaves whisper, thunder booms. This music serves as a backdrop for countless bird voices — trumpeting swans, hooting owls, the hum of hummingbird wings, the arias of songbirds, the drumming of woodpeckers and grouse. Bull elk bugle challenges as their great hearts pound like kettledrums, and coyotes serenade the night.

The tympanic buzz of cicadas rises like the heat of day, while cricket and katydid music captures the tranquillity of a warm summer night.

Sometimes the hunter is both audience to and participant in this effort. I recall one hunt that was composed more of sounds than sights, and possibly how all those sounds, although recognized individually, were truly orchestral when realized collectively. How even the roar of the shot seemed but an emphatic, final note at the end of the first movement.

A small flock of Canada geese fly over the undulating farmland at daybreak, honking and gabbling to other geese on the big pond below. The chorus grows louder as they descend on locked wings. As they pass over the little wooded hollow where I'm standing, a nearby fox barks sharply in reply. The resonant honks and high-pitched barks form an odd, but pleasant, chord that echoes across the fields. I wait here in hopes of ambushing an antlerless deer, a corn fed farm deer for the freezer.

As the din of the geese fades, I listen intently for the sound of hoofs crunching on frosty leaves. The soft rustling of a gray squirrel foraging across the hollow gets my attention, and I'm startled by the sudden mechanical cry of a kingfisher, *rickety, crick, crick, crick*, as it speeds down the creek. I hear the faint tread of the deer before I see them. They appear almost as apparitions, brown deer in brown woods, the only visible shapes are the white markings around eyes and muzzles and flanks. Closer now, I see the fringe of white on their tightly clamped tails as they file by, and at my shot the third deer in line falls to earth. It's a steep drag to the cornfield and my truck, but the deer slides along nicely on a leafy path that snakes uphill.

We emerge from the dark woods, the deer and I, steaming as one in the sunlit field. Below, the kingfisher rattles back up the creek and the overture begins again. All the while, beyond the sound of bird and man and deer, beyond the obvious, an unfinished symphony plays on.

PENN'S WOODS

SKETCHBOOK

BOB SOPCHICK

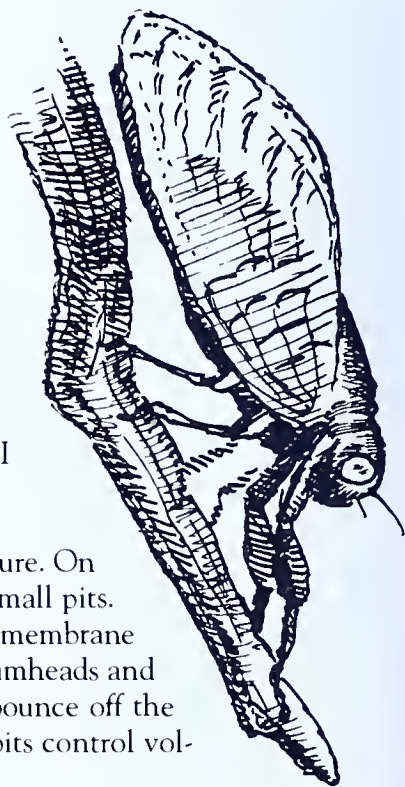
TITMOUSE comes from the Old Icelandic titr, something small, and mouse is a corruption of mase, Anglo-Saxon for a kind of bird. The tufted titmouse, a relative of the chickadee, has a loud song for a bird so small. In late March, during the breeding season, they sing feverishly,

with four to eight phrases of *peto, peto, peto*. One afternoon, a few minutes before five o'clock, several titmice began their loud refrain just outside my studio window.

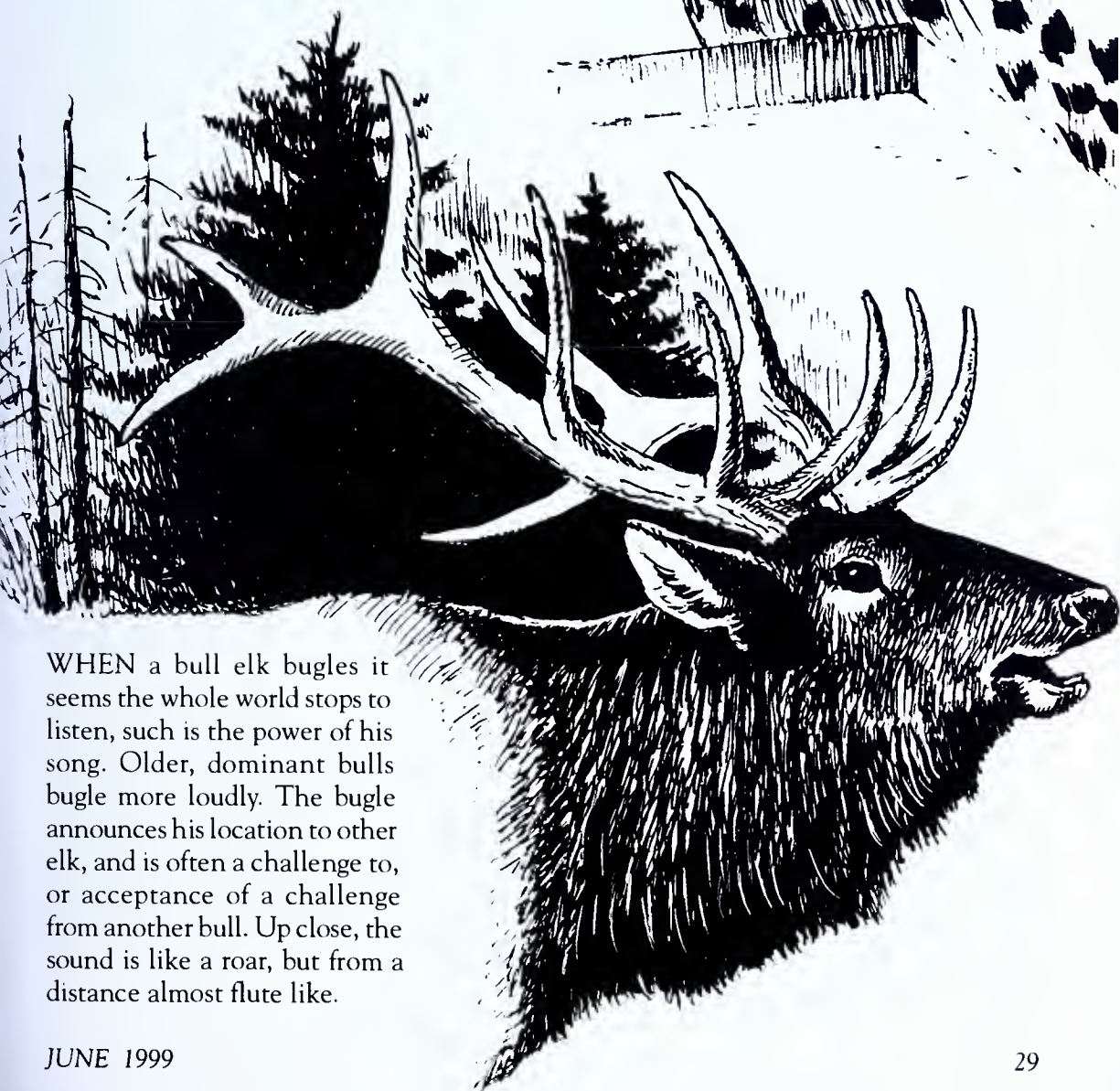
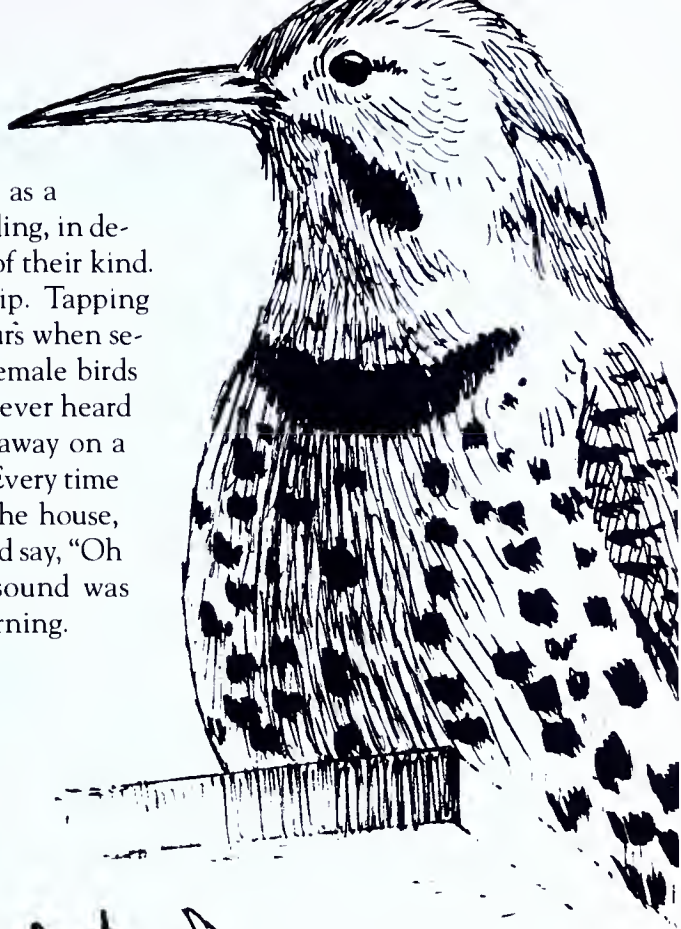
I watched their antics at the window, when from behind me came that same familiar song, but louder. I had to smile when I realized that at five o'clock the titmouse sings his song from the novelty bird clock on the wall.

WATER MUSIC, in all its forms, is pleasant to listen to, and there are many recordings of thunderstorms on a lake, waves breaking on a shore and even waterfalls. I have a tape of a rushing mountain stream, but whenever I play it as I work, I start to daydream of mountain freshets in favorite hollows across the state and I lose concentration. My favorite water music, though, happens in the uplands in late October, on a misty morning after an all night rain, when overloaded water droplets plop from beech and oak leaves and splat on the leafy carpet. But any recording of dripping water wouldn't sell very well, I suppose. Except, perhaps, to grouse hunters.

CICADAS have the most complex sound organs in nature. On either side of the abdomen under their wings are two small pits. Inside are drumheads, or timbals, along with a folded membrane and a sounding board. Powerful muscles vibrate the drumheads and as the vibrations expand within the membrane, they bounce off the sounding board and intensify. Flaplike plates over the pits control volume.



NATURE'S percussion section, the woodpeckers, drum or beat a tattoo on trunks and limbs, especially those with a resonant quality. Woodpeckers drum as a form of ritual behavior during pair bonding, in defense of territory or to signal to others of their kind. They also tap quietly during courtship. Tapping strengthens the pair bond and also occurs when selecting nesting holes. Both male and female birds drum and tap. The loudest drumming I ever heard was made by a flicker who hammered away on a raised metal rain guard over a chimney. Every time the flicker began his solo the lady of the house, our neighbor Ginny, would come out and say, "Oh my! Oh my!" Inside her house the sound was earsplitting. Especially at six in the morning.



WHEN a bull elk bugles it seems the whole world stops to listen, such is the power of his song. Older, dominant bulls bugle more loudly. The bugle announces his location to other elk, and is often a challenge to, or acceptance of a challenge from another bull. Up close, the sound is like a roar, but from a distance almost flute like.



FIELD NOTES



Modern Wildlife Management

BUCKS — After only one week in my new district I was amazed at the variety of wildlife related calls I responded to. There were geese, coyote, turkey, deer and small mammal incidents. I quickly learned how the loss of habitat has magnified the conflicts between wildlife and the residents who live in the suburbs.

— WCO RICHARD E. MACKLEM, NEW BRITAIN

Priorities

PIKE — During the spring thaw Deputy Doug Lutz was awakened early one morning by his wife Suzanne shouting for help. Doug ran outside to his pond and immediately began rescuing his dogs, which had fallen through the ice. Being excellent hunters, the Labs are Doug's pride and joy. With the aid of a heavy branch Doug broke a path through the ice, so the tired dogs could swim safely to shore. Oh yeah, after the dogs were safe, he pulled Suzanne out.

— WCO ROBERT W. JOHNSON, MILFORD

Can't Escape

BLAIR — My wife and I are happy here in the mountains, since transferring from the Philadelphia area, but after my first day on the job, upon walking in the house smelling of skunk, my wife said, "Same job, different place."

— WCO SCOTT THOMAS, TYRONE

Never Say Never

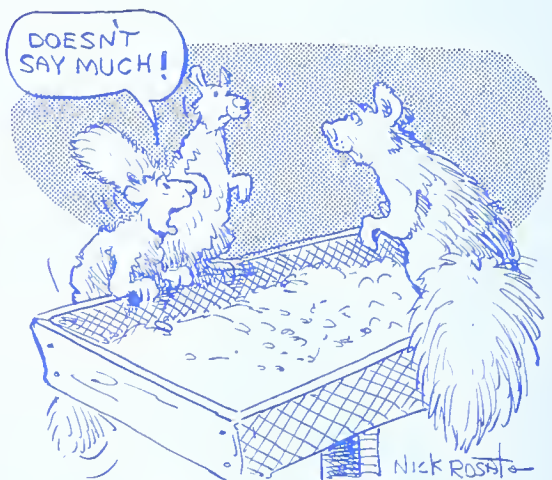
BERKS — With the bear population on the increase, I was not surprised to get a call about a roadkilled bear in my district. The surprising part was that it was a lactating sow and it was February when she should have been in her den with her cubs. The other surprising thing was that this bear was from New Jersey.

— WCO CHUCK LINCOLN, LEESPORT

Took the Big Dive

MIFFLIN — I recently noticed a young squirrel — evidently just sent out on its own by its mother — fall into a pond. Luckily I had a net and was able to rescue the hapless youngster.

— WCO JEFF MOCK, LEWISTOWN



King of the Hill

UNION — I placed a large male squirrel taxidermy mount on my bird feeder to discourage other squirrels from dominating it. When the dominant squirrel in my backyard noticed the mount he stayed clear, but all the submissive bushytails soon joined the new "dominant" mount in the feeder, defeating my original purpose.

— WCO BERNARD J. SCHMADER, MILLMONT

Told the Wrong Guy

BEDFORD — Deputy Terry Hoenstine and his father were checking out new rifles with detachable clips when a fellow standing next to them piped up, "Those detachable clips make it easy to unload the rifle in your vehicle when you spot a game warden."

— WCO JIM TROMBETTO, NEW ENTERPRISE

Surrogate Mother

ADAMS — Cub Scout Pack 77 in Bonneauville asked me to speak about bears. The kids — and parents — were extremely interested in our bear program, and I put a different spin on being a den mother.

— WCO LARRY HAYNES, GETTYSBURG

Burning the Candle on Both Ends

After helping fight a huge brush fire on SGL 117 in Washington County, imagine the thoughts running through my mind when I spotted smoke on SGL 245. Thankfully, it turned out to be Dave Griffin and the Greene County maintenance crew burning warm season grasses. Fire, when strictly controlled, is a valuable habitat management tool.

— SGL MAINTENANCE SUPERVISOR GEORGE MILLER, LIGONIER



Nature's Computer

I recently attended a forestry seminar where Dr. David Houston described one way that beechnuts are dispersed. A bluejay picks up six or seven beechnuts, flies off to another area, and then buries each one in a different spot. The jay can remember where most — but not all — of its cached nuts are stored.

— LMO JAMES DENIKER, SANDY LAKE

"Right at the End of My Nose"

LYCOMING — Bear numbers continue to increase and it seems they're everywhere. Suburbs and even cities are being used as havens where females are raising their cubs — that in turn raise their cubs — to adapt to feeding on garbage, birdseed and other handouts. I no longer have to travel far to trap bears, and recently I caught a 367-pound male in my driveway, and I live in a populated area of the city.

— WCO TERRY D. WILLS, WILLIAMSPORT

Looking for Fast Food

MONTGOMERY — The manager of the Plymouth Meeting Mall called about a bird trapped inside. When I got there I found a screech owl resting in a newly planted tree. With an electric lift, Deputy Perry Schultz and I were able to net the bird and release it into the wild.

— WCO CHRISTOPHER B. GRUDI, SKIPPAK

Strong Allies

The Moshannon Chapter of the National Wild Turkey Federation purchased a new Vicon spreader for our Food & Cover crew to seed and fertilize herbaceous openings here in Clearfield County. The new spreader replaces one that is 23 years old and that we could no longer find parts for.

— LMO COLLEEN M. SHANNON, GRAMPIAN

Planted the Seeds

About 12 years ago, while responding to an injured goose report, I was talking with the family when a youngster, with *Game News* in hand, cautiously sidled up to me and pointed to a Field Note I had written. I gave him a set of Wildlife Notes, and was later told that he carried those notes everywhere until the cover wore off. Recently I had the opportunity to sign off on that young man's senior FFA wildlife project.

— LMO SHAYNE HOACHLANDER, CORRY

Bird of a Different Feather

CRAWFORD — Many people reported big turkey flocks here last winter, although I'm a little confused about the flock spotted near Jamestown. It had close to 50 turkeys and one peacock. Maybe the peacock was confused.

— WCO DAVE MEYERS, LINESVILLE



Food for Thought

DAUPHIN — If you see a fox, raccoon or other nocturnal animal about during the daytime, it doesn't necessarily mean the animal is sick. There are many good reasons for these animals to be out then. For example, the animal's den may have been destroyed during the night, or it could have missed a meal.

— WCO MIKE DOHERTY, WAGONTOWN

Hats Off

ALLEGHENY — As I prepare to transfer to my new district in Indiana County, I reflect on the experiences I have had here. A special thanks goes out to the Allegheny County Sportsmen's League for making my stay much more enjoyable. It was a great relief knowing that any assistance needed was just a phone call away. For their help with everything from roadkilled deer to legislative lobbying support, this fine organization has my sincere thanks.

— WCO JACK A. LUCAS, PITTSBURGH

Something to Think About

JEFFERSON — Sunday hunting has been getting a lot of press lately, and some individuals are petitioning legislators to introduce legislation allowing it. Pennsylvania is blessed with a tremendous amount of private land open to the public for outdoor recreation. Many of these generous landowners tolerate a few high pressure hunting days knowing that Sundays are days when they can be outdoors on their own property without interference from others. I'm afraid that allowing Sunday hunting would result in more posted property. Also, how will nonhunters respond to Sunday hunting? Let's not be too hasty in making changes that may cost more than what they're worth.

— WCO ROGER A. HARTLESS, BROOKVILLE

Cash or Credit?

ELK — A man told me he saw a ring-necked pheasant perched on the windowsill of a furniture store in Johnsonburg. I'm not sure if the bird saw its reflection or was looking for some new furniture.

— WCO DOTY A. McDOWELL,
SAINT MARYS

Thirty More

BRADFORD — Attending the graduation of the 24th Class of wildlife conservation officers, I found it hard to believe that 30 years have passed since I graduated from the school. There was so much pride exuberating that day that I was compelled to re-enlist for the next class.

— WCO WILLIAM A. BOWER, TROY

Luckily a New Class is in Session

LAWRENCE — After graduating from the training school I thought the trainee status was over. I was wrong. At the Northwest Region office meeting I was told I'll now be known as "the rookie" and so I won't forget, I was given a fluorescent orange cap with NW ROOKIE in large print across the front.

— WCO RANDY W. PILARCIK, NEW CASTLE

Earned It

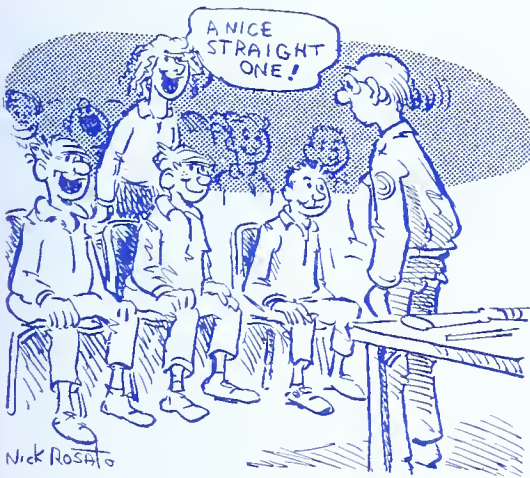
MONTGOMERY — Deputy Bill Williams told me that he was going to retire after 37 years of service. The next day 35-year Deputy Dick Endy announced his retirement. These guys started with the commission before I was born. Thanks for the many years of service to the people and wildlife of our state.

— WCO BILL VROMAN, FREDERICK

Progress?

LUZERNE — I've responded to many calls about bears wandering around the construction sites near exit 46 of Interstate 81, where a new sports arena and two new department stores were put up. This new construction has been carved out of a once heavily forested area inhabited by many species of wildlife. The public now demands that the Game Commission do something about these poor, displaced, but now nuisance, wildlife.

— WCO JOSEPH G. WENZEL, BEAR CREEK



Down to Basics

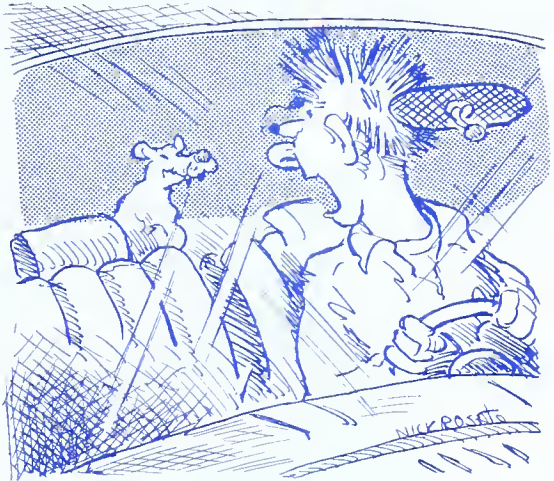
McKEAN — At a Hunter-Trapper Ed class, instructor Jim Rankin asked the students what important item is needed when hunting from a treestand. Expecting to hear safety belt, Jim was taken off guard when a young lady blurted out, "a tree."

— WCO THOMAS M. SABOLCIK,
PORT ALLEGHENY

Got Hooked

BRADFORD — I helped Fish and Boat Commission Deputy Frank Lindsey stock trout in March. It was a fun way to spend a day off, but after seeing so many trout put into local streams, it sure made me want to wet a line.

— WCO VERNON I. PERRY, III, MONROETON



Backseat Driver

CLARION — After I presented a program on fishers for some school children, my vehicle broke down. I had it towed to a local garage for repairs, and left my fisher mount on the back seat. The next morning — which happened to be April 1 — the mechanic started the vehicle, but when he put it in reverse and turned to look over his right shoulder, he stared the fisher right in the face. He was startled but managed to shift into park and bail out. He soon realized the situation, though, and had a good laugh. My thanks to Kevin Debeaulieu for fixing my vehicle anyway.

— WCO ALAN C. SCOTT, NEW BETHLEHEM

Seeing is Believing

SCHUYLKILL — Berk Krammes told me — with a hint of sarcasm in his voice — about a hunter's claim of seeing 86 turkeys in one flock. Bert's eyes got wide as saucers when I told him about the flock of 118 that I saw in February. Honest, Bert, I counted them twice.

— WCO STEVE HOWER, PINE GROVE

The Mind is First to Go

HUNTINGDON — Neighboring WCO Phil Lukish and I are no spring chickens, and we often kid each other about how forgetful we're becoming. Recently, Phil told me that one of his deputies had pointed out to him that the inspection on his vehicle would expire the following day. We then turned around and looked at the sticker on my vehicle. Guess what?

— WCO JOHN B. ROLLER, HUNTINGDON

Keepin' With Tradition

MONROE — Now that I'm out of training school and in my new district, I'm often told by the locals that I have big shoes to fill (literally) since WCO Dirk Remensnyder transferred. I'm also asked by *Game News* readers if the good natured Field Note competition with neighboring officers will continue. Let the games begin.

— WCO THOMAS D. SWIECH, SWIFTWATER

Quick Learner

PERRY — During a Hunter-Trapper Ed class at Greenwood Elementary School, Deputy Fred Schulthies told the youngsters that at Christmas he takes homemade jelly to every landowner that allowed him to hunt on their property. At the end of the course, student April Laverty presented each of the instructors with a box of chocolate candy. This young hunter's attitude should open up plenty of hunting opportunities, and she'll be invited back. She'll also be welcome to attend another one of our classes anytime.

— WCO JIM BROWN, LOYSVILLE

False Sense of Confidence

CLEARFIELD — Most of a group of kids told me they were experienced hunters, that they had learned everything they knew from computer games. Did they smell a damp fall woods or experience a beautiful sunrise or sunset? These are just some of the hunting experiences that a computer screen can't provide.

— WCO CHRISTOPHER P. IVICIC, PHILIPSBURG

Prized Possession

BERKS — I responded to a call about a Canada goose aggressively guarding a trash burning barrel in a landowner's backyard. Instead of relocating the goose, I decided to relocate the barrel. While I was walking off with the barrel, though, the goose grabbed my pant leg and began flailing me with its wings. I'm glad there wasn't a whole flock guarding the barrel.

— WCO DAVID BROCKMEIER, SHILLINGTON



Tag

BEDFORD — Several hunters told me that during deer season they saw three coyotes harassing a large bear in a field. The coyotes appeared to be enjoying the game.

— WCO TIMOTHY C. FLANIGAN, BEDFORD

Nature's Fangs

SNYDER — Dave Gehers and Bill Newman were hunting rabbits last winter when their three beagles chased a rabbit into a blowdown. Moments later the dogs began squealing. One of the dogs crawled back out, bleeding profusely, then all became quiet. It seems the dogs had stumbled upon a bear in its den. One of the dogs was found dead in the blowdown and the third was never found. The hunters were upset at losing two dogs, but they also understood that the bear was defending itself.

— WCO STEVEN BERNARDI, PENNS CREEK

Vern Ross selected as new executive director

VERN ROSS, Governor Tom Ridge's Sportsmen's Advisor since 1994, has been selected to succeed Donald C. Madl as the Game Commission's executive director. Ross, 58, becomes the 16th person to serve as the agency's executive director or executive secretary. Madl served as executive director from October 1994 through April of this year. He succeeded Peter S. Duncan of Millerstown, who held the office for about 11 years.

"It's a privilege to have been selected to this position and to be given the chance to lead one of the nation's most renowned wildlife conservation agencies," Ross said. "I fully recognize the responsibility that comes with the position and pledge to safeguard and professionally manage the commonwealth's wildlife resources." On Madl's retirement, Ross said, "I had a good relationship with Don. He gave 37 years of his life to the Game Commission. I tip my hat to him."

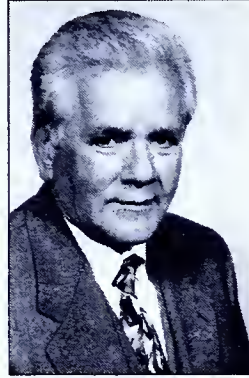
Originally from New Kensington, Ross is a graduate of Ken High School, now known as Valley High School. After serving in the U.S. Army from 1959 to '62, Ross worked for 37 years in a variety of administrative positions. In 1994, he was selected by Ridge to be executive director of the administration's new Sportsmen's Advisory Council.

An avid hunter for 43 years, Ross said he grew up in a hunting family, one in which his mom and dad both hunted.

"Some of my fondest memories are those of hunting with my dad," Ross said. "Every time I hunt in Cameron County, it's like a trip down memory lane."

Ross said his first contact with the Game Commission occurred in the 1940s, when, as a 7-year-old, he watched game protectors investigate a neighbor who was shooting deer illegally. "The officers were wearing knee-high boots and saddle pants, and were very approachable," Ross said. "I thought they lived with wildlife from the way they answered my questions. I was very impressed with them."

Ross's interest in conservation started with his dad. He remembers sitting with his father on the porch of the family's cabin in Cameron County and listening to the distinctive call of whippoorwills. "Dad really enjoyed those enchanting nocturnal birds, but he already knew in the '50s that they were declining. Why was unclear. Pes-



Vern Ross

ticides? Habitat loss? Who knows? I wondered about how we could stop this kind of thing from happening. Whippoorwills, after all, are as much a part of the night as the stars. Although a small bird, it provides a great deal of enjoyment to many people."

Wildlife, Ross believes, has lasting, positive effects on most Pennsylvanians. "Sometimes we take for granted what wildlife does for us, or how delicate it is, until it's gone," he explained. "We need to change that. Wildlife is, after all, one of Pennsylvania's most precious resources."

During his first few weeks on the job, Ross expects to spend a great deal of time meeting with employees. "Employees need to know what direction I plan to head in, and I need to know what they believe we should be doing."

Ross said whatever changes he makes will be tempered by the employee input and recommendations made by the U.S. Fish & Wildlife Service's Management Assistance Team, which is currently analyzing agency programs and organizational development. But reorganization, in some form, seems likely.

"I have ardently followed the Game Commission for most of my life," Ross said. "I'm familiar with its people, its mission, its history. I know the agency has problems. But when I applied for the job as executive director I accepted the challenge to resolve those problems. I think my honeymoon is going to be very short-lived because I'm not coming to the Game Commission to smell the roses. I'm coming to make a difference."

Ross plans to improve the relationship between the Game Commission and legislators. He plans to refine the agency's involvement with legislators by stepping up contacts, developing a legislative agenda and establishing a crisis management team that will try to resolve problems before they become legislative issues. Ross also plans to pay particular attention to deer management, budgeting, law enforcement and habitat improvement, in an effort to reduce political tensions between some legislators and the agency.

An avid hunter for 43 years, Ross loves to hunt for bear and deer, particularly in Cameron County. Turkey hunting, however, is his favorite.

Ross also enjoys watching birds. While headquartered in the Rachel Carson Building as the governor's advisor, he watched peregrine falcons almost daily. He also likes to sit on the back porch on weekend mornings at daybreak, drinking coffee and watching songbirds come to his feeders. His favorite bird is the cardinal.

"Conservation has been bred into me," Ross said. "It's the answer to managing wildlife, the only way to ensure my grandchildren will experience the same outdoor pleasures I have come to enjoy. Wildlife is what makes my heart do that double-beat. I can't imagine living without it. No Pennsylvanian should."

Ross has been married to his wife Carolyn for 38 years and has three children: Brian, 36, New Cumberland; Suzanne, 34, Lewisberry; and Jennifer, 28, Camp Hill. He also has four grandsons.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

Game Commission sets 1999-2000 seasons & bag limits

AT ITS APRIL meeting, the Game Commission kept 1999 antlerless deer license allocations at 1998 levels, and returned the opening of rabbit, pheasant and quail seasons to a more traditional opening day. Other highlights include maintaining a 3-day statewide antlerless deer season and limiting the proposed statewide, 3-day flintlock antlerless deer season to six special regulations counties. Commissioners also voted to again limit the sale of surplus antlerless deer licenses to nine southwestern counties and the six special regulations counties.

Citing reservations about becoming too impulsive or liberal with the state's deer management program, the commissioners opted to maintain the 3-day antlerless deer season they proposed at their January meeting. In the days prior to the Commission meeting, staff recommended commissioners adopt an antlerless season framework incorporating six- and 12-day seasons for those counties that considerably exceed agency deer population goals. Moving to longer seasons would have reduced large antlerless license allocations and surplus license sales in some counties. The longer seasons, however, were intended to maintain current deer populations, not reduce them.

For the second straight year, commissioners considered expanding the issuance of surplus licenses statewide. And, for the second year in a row, after proposing the measure at an earlier meeting, they voted it down. Hunters may apply for surplus licenses in only the following counties: Allegheny, Armstrong, Beaver, Bucks, Chester, Cambria, Delaware, Fayette,

Greene, Indiana, Montgomery, Philadelphia, Somerset, Washington and Westmoreland.

The commissioners approved a statewide antlerless allocation of 890,700 (including 93,500 for special regulations counties) for the 1999 hunting seasons. The allocation is the same as 1998's, which resulted in sales totaling about 745,000 licenses.

The commissioners amended the statewide 3-day antlerless deer muzzleloader season they had proposed in January to only special regulations counties. The season, which will be held November 18-20, will be limited to 44-caliber or larger flintlock muzzleloader rifles with a single barrel and iron, open "V" or notch sights. Ammunition is limited to a single spherical lead bullet and cloth patch. Maxi and mini ball ammunition is prohibited. Hunters participating in this season must also wear 250 square inches of fluorescent orange clothing on the head, chest and back.

In related action, commissioners also extended the deadline to apply for a muzzleloader license from July 31 to August 31. A hunter applying for a muzzleloader license no longer has to surrender his or her antlerless license application.

Other deer seasons will remain as proposed in January. They are: archery, Oct. 2 to Nov. 13; antlered deer, Nov. 29 to Dec. 11; antlerless deer, Dec. 13-15; junior hunter antlerless deer, Dec. 4 and 11; late archery and flintlock, Dec. 27 to Jan. 15, 2000.

Commissioners also took action to delay the start of the rabbit, ring-necked pheasant and quail seasons. In January, the commissioners proposed

an Oct. 16 opening day, a start that patterned last year's. At the April meeting, however, they decided to change the opening day to October 30, a date more in line with tradition. These seasons close November 27.

Other small game seasons are as follows: junior hunter special squirrel season, Oct. 9 and 11; squirrel and grouse, Oct. 16 to Nov. 27; varying (snowshoe) hare, Dec. 27 to Jan. 1, 2000; late squirrel, rabbit and north

zone pheasant, Dec. 27 to Feb. 12, 2000; and late grouse, Dec. 27 to Jan. 29, 2000.

Other season dates of interest include: bear, Nov. 22-24; and fall turkey: Management Areas 1A, 1B, 2, 6, 7A and 8, Oct. 30 to Nov. 13; Area 7B, Oct. 30 to Nov. 6; Areas 3, 4 and 5, Oct. 30 to Nov. 20; Area 9A, closed to fall hunting; Area 9B, Nov. 1-6. Spring gobbler, statewide, April 29 to May 27, 2000.

Proposed regulations for disabled to use ATVs on SGLs advanced

THE COMMISSIONERS gave tentative approval to regulations that pave the way for hunters who have certain physical disabilities and hold a Disabled Persons Permit to use designated state game land roads while hunting. Under the proposal, the agency will designate roads that will be open to ATVs operated by permitted disabled hunters during the spring gobbler season and from two weeks before the start of archery season until the close of muzzleloader season.

ATVs must be registered with the state Department of Conservation and Natural Resources and display the universal access symbol for the disabled. Towing vehicles must display on their dash a towing vehicle placard provided by the PGC.

Permitted persons may venture no

more than 100 yards from the nearest road edge to establish a hunting location. ATV speeds may not exceed 10 mph. ATVs also may not be used to traverse waterways, wet areas and food plots.

In an effort to determine interest and reaction to the proposed regulations, a survey was sent to more than 5,000 persons who currently hold a Game Commission Disabled Person Permit.

Working with the Game Commission in this endeavor are the Department of Conservation and Natural Resources' bureaus of State Parks and Forestry, Pennsylvania Fish and Boat Commission, Pennsylvania Sportsmen for the Disabled Inc., Unified Disabled Sportsmen of Pennsylvania and other interested individuals.

Changes for controlled goose, duck areas proposed

THE COMMISSIONERS gave preliminary approval to several changes recommended for the controlled goose and duck areas at the Pymatuning and Middle Creek wildlife management areas. These changes include:

- Furbearer trapping permits will be issued on a first-come, first-served basis or by drawing until quota is filled.

- Middle Creek controlled goose hunting area applications must be received no later than the second Tues-

day in August; Pymatuning, by the second Saturday in September.

- Middle Creek controlled goose hunting area drawings will be held the second Wednesday in August; Pymatuning, the third Saturday in September. Both are open to the public.

In other action, the commission:

- Gave preliminary approval to a proposal removing restrictions on mourning dove hunting hours. In past years the early dove season was restricted to the hours from noon to sunset. The 1999 dove seasons and hours will be set later this year under U.S. Fish & Wildlife guidelines.
- Adopted a measure permitting landowners who qualify for the Deer Damaged Farm Program and have been enrolled in a PGC public access program for at least two years to apply for a Deer Depredation Permit.
- Gave approval to a proposed procedure for handling citizen complaints against employees and volunteers.
- Adopted a resolution authorizing the agency to enter into an agreement with municipalities and other agencies to fund projects recommended by the Elk Advisory Committee and directly benefiting elk management and viewing activities. The resolution earmarked a \$2 donation from every elk video sold to be deposited into a fund for these activities.
- Accepted the transfer of about 92 acres in Lackawanna County's Jefferson Township from the Pennsylvania Department of Transportation. The land is adjacent to SGL 300 and contains eight wetland acres.
- Announced the next Game Commission meeting will be June 7 and 8 at the agency's Harrisburg headquarters.

1999-2000 Seasons and Bag Limits

At its April meeting, the Commission established the following seasons and bag limits for resident game and furbearers for the July 1, 1999, through June 30, 2000, license year.

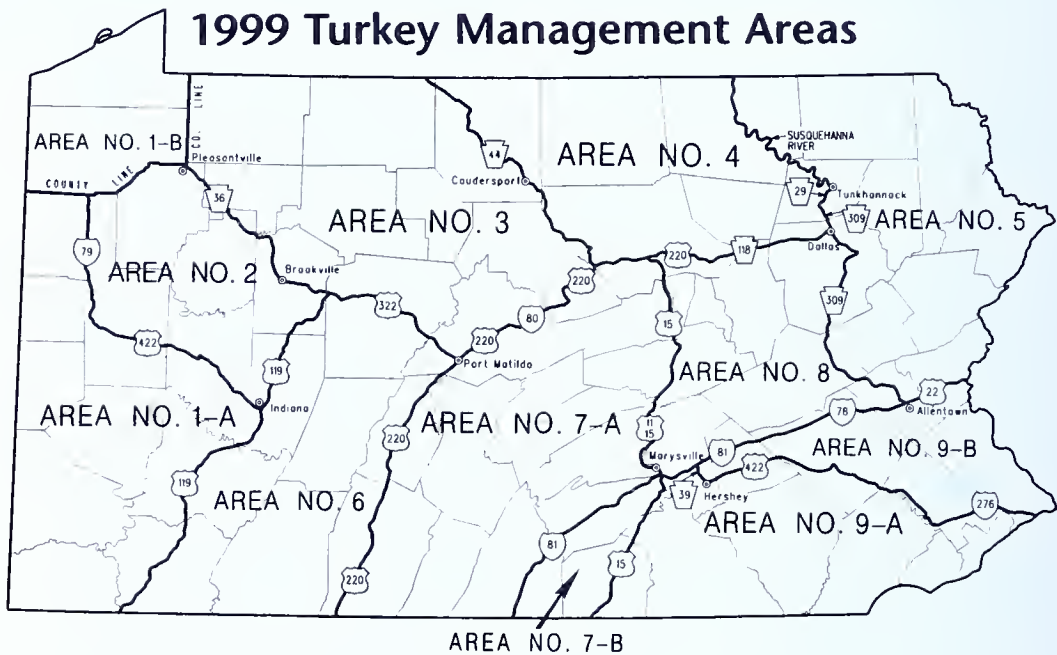
Open seasons include first and last dates listed, Sundays excepted, for game. Shooting hours are from one-half hour before sunrise until sunset — except during the spring gobbler season, when the times are one-half hour before sunrise until noon. Raccoons may be hunted any hour except during the firearms deer seasons, when the hours are from sunset to one-half hour before sunrise. Woodchucks, opossums, skunks and weasels may not be hunted before noon during the spring gobbler season. Seasons and shooting hours for migratory birds will be announced later.

SMALL GAME

		Daily Limit	Field Possession Limit
Squirrels (Youth Hunt), combined species Junior Hunters only (12-16) with or without the required license when properly accompanied.	Oct. 9 & Oct. 11	6	12
Squirrels: gray, black, fox and red (combined)	Oct. 16 – Nov. 27 Dec. 27 – Feb. 12	6	12

SMALL GAME (continued)

		Daily Limit	Field Possession Limit
Ruffed grouse ¹	Oct. 16 – Nov. 27 Dec. 27 – Jan. 29	2	4
Rabbits, cottontail	Oct. 30 – Nov. 27 Dec. 27 – Feb. 12	4	8
Ring-necked pheasant, males only	Oct. 30 – Nov. 27	2	4
Either-sex in designated area ²	Oct. 30 – Nov. 27 Dec. 27 – Feb. 12	2 2	4 4
Bobwhite quail (in 54 counties) ³	Oct. 30 – Nov. 27	4	8
Woodchucks (no Sunday hunting)	No closed season ^{##}		Unlimited
Crows (Fridays, Saturdays, Sundays only)	July 2 – Nov. 28 Dec. 24 – March 26		Unlimited
Snowshoe hares (varying hares)	Dec. 27 – Jan. 1	2	4



BIG GAME		Daily Limit	Season Limit
Fall Turkey		1	1
(Management Area 1A & 1B, shotgun/bow only)	Oct. 30 – Nov. 13		
(Management Area 7B)	Oct. 30 – Nov. 6		
(Management Area 2,6,7A & 8)	Oct. 30 – Nov. 13		
(Management Area 3,4,5)	Oct. 30 – Nov. 20		
(Management Area 9A)	Closed to fall hunting		
(Management Area 9B, shotgun/bow only)	Nov. 1 – 6		
Spring Gobbler (bearded birds, statewide)	April 29 – May 27	1	1
Bear	Nov. 22 – 24	1	1
Deer ^{##}			
Archery	Oct. 2 – Nov. 13		
Antlered	Nov. 29 – Dec. 11		

BIG GAME (continued)

Antlerless — Junior License holders only, with required antlerless license	Dec. 4 and Dec. 11		
Antlerless	Dec. 13 – Dec. 15		
Late Archery/Flintlock	Dec. 27 – Jan. 15		
Antlerless — Special Regulations Areas ⁴	Nov. 29 – Dec. 18		
	Dec. 27 – Jan. 15		
Antlerless — Deer Damage Areas	Nov. 29 – Dec. 11		
Antlerless Flintlock (Only in Special Regulations counties of Allegheny, Bucks, Chester, Delaware, Montgomery and Philadelphia with county-specific antlerless deer license): Nov. 18 – Nov. 20. Note: Flintlock hunters in this season must wear and display 250 square inches of fluorescent orange on the head, chest and back combined.			

FURBEARERS — HUNTING

		Daily Limit	Season Limit
Raccoon and Fox	Oct. 16 – Feb. 26 ^{##}		Unlimited
Coyote, Opossum, Skunk, Weasel	No closed season ^{##}		Unlimited

FURBEARERS — TRAPPING

Raccoon, Fox, Opossum, Skunk, Weasel, Coyote	Oct. 17 – Feb. 26		Unlimited
Mink and Muskrat	Nov. 21 – Jan. 9		Unlimited
Beaver	Dec. 26 – March 15		
Zones 1, 2 & 3 (except Bradford, McKean, Potter, Susquehanna, Tioga and Wayne counties)		10	20
Zones 4 & 5		10	40
Zone 6		10	10
		6	6

NO CLOSED SEASON — European starlings and English sparrows

NO OPEN SEASON — All other wildlife species

Special Regulations

¹Grouse hunting prohibited on designated portion of SGL 176, Centre County.

²Designated area for male and female pheasants — East of Ohio and north of Interstate 80 to Route 220, north of Route 220 from I-80 to Route 118, north of Routes 118 and 415 from Route 220 to Route 309, north and east of Route 309 from Route 118 to I-80, and north of I-80 from Route 309 to the New Jersey line.

³Bobwhite quail hunting permitted Oct. 17 – Nov. 28 in all counties except Adams, Chester, Cumberland, Dauphin, Delaware, Franklin, Fulton, Juniata, Lancaster, Lebanon, Perry, Snyder and York, where the season is closed.

⁴Special Regulations Areas — All of Allegheny, Bucks, Chester, Delaware, Montgomery and Philadelphia counties.

- ♦ Lawful for deer: Muzzleloading long guns; bow and arrows; manual or auto-loading shotguns, 20-gauge or larger, slugs or buckshot only — except buckshot may not be used in Allegheny County. Buckshot is required in Ridley Creek and Tyler state parks.
- ♦ Lawful for small game, huntable furbearers and crows: Manually operated or autoloading shotguns plugged to three-shell capacity; shot no larger than No. 4 lead, bismuth-tin and tungsten-iron, or No. 2 steel; and bow and arrow. Manually operated 22-caliber rimfire rifles and handguns are permitted.

- ♦ Lawful for waterfowl: Manually operated or autoloading shotguns no larger than 10-gauge, plugged to three-shell capacity in chamber and magazine combined; only nontoxic shot no larger than T (.20 inches); bow and arrow.
- ♦ Lawful while trapping: manually operated 22-caliber rimfire rifles or handguns.
- ♦ Trappers under 12 must be accompanied by a licensed furtaker 18 years of age or older.

[#]Statewide, hunters may take one antlered deer and, with each valid antlerless license, one antlerless deer. During archery, antlered, antlerless and muzzleloader seasons, hunters may take only one deer per day, regardless of the number of valid tags they possess. On December 4 & 11, however, Junior License holders may take an antlered deer and, for each valid license they possess, an antlerless deer. In Special Regulations counties, Deer Damage Areas, and the Letterkenny Army Depot, properly licensed hunters may also take more than one deer a day.

^{##}During the regular antlered and antlerless deer seasons, Nov. 29 – Dec. 11 and Dec. 13 – 15, respectively, and any extension thereof, it shall be unlawful to hunt any other wild bird or animal (except coyotes if the hunter has a valid, unused deer tag) from one-half hour before sunrise to sunset. Migratory waterfowl and game birds on regulated hunting grounds are excepted. Hunting for species other than turkeys is prohibited before noon during spring gobbler season, except coyotes if the hunter has a valid, unused spring turkey tag and meets fluorescent orange and shot size requirements. With the exception of foxes and coyotes, furbearers may not be hunted on Sundays.

Turkey study to begin on the Michaux

WHILE TURKEY populations are in great shape throughout most of the state, those in Turkey Management Area 7B have been declining since the early 1980s. After 1994, when the spring and fall harvest densities in 7B were the lowest in the state, the fall season was reduced to one week, in hopes the population would improve. It hasn't; in fact, harvest densities have continued to decline.

In hopes of identifying the causes of the depressed population, a 2-year project to determine survival rates and cause-specific mortality rates for hens in the management area is about to begin.

Much of 7B is made up of the Michaux State Forest, which receives a lot of pressure from hunters and

many other outdoor enthusiasts.

Wild hens will be trapped from August through March, except during the hunting seasons. Each hen will be aged, weighed, leg-banded and radio-tagged. Plans call for the radio-tagged hens to be monitored at least three times weekly during the spring and fall hunting seasons, and twice weekly throughout the remainder of the year. Also, to locate lost transmitter signals, the area will be flown over at least once a month. In the nesting season, hens will be monitored at least five times a week, to determine nesting rates, nesting success and poult survival.

The Pennsylvania Chapter of the NWTF has committed more than \$25,000 to this project.

1999 Antlerless Deer License Allocations

County	Licenses	County	Licenses	County	Licenses
Adams	16,900	Fayette	11,300	Northampton	10,900
Armstrong	17,000	Forest	12,500	Northumberland	7,200
Beaver	20,000	Franklin	7,600	Perry	13,000
Bedford	21,350	Fulton	12,000	Pike	6,600
Berks	22,000	Greene	18,000	Potter	16,000
Blair	13,600	Huntingdon	28,000	Schuylkill	17,900
Bradford	28,000	Indiana	18,800	Snyder	5,200
Butler	19,000	Jefferson	15,900	Somerset	13,700
Cambria	11,400	Juniata	8,000	Sullivan	6,000
Cameron	1,400	Lackawanna	3,500	Susquehanna	9,700
Carbon	3,700	Lancaster	9,400	Tioga	24,000
Centre	16,200	Lawrence	5,900	Union	5,000
Clarion	13,000	Lebanon	6,450	Venango	10,800
Clearfield	19,000	Lehigh	9,200	Warren	23,900
Clinton	6,000	Luzerne	10,700	Washington	28,000
Columbia	14,500	Lycoming	14,400	Wayne	8,500
Crawford	15,600	McKean	15,500	Westmoreland	26,000
Cumberland	16,000	Mercer	8,600	Wyoming	6,000
Dauphin	7,200	Mifflin	8,000	York	24,900
Elk	8,800	Monroe	4,400		
Erie	12,900	Montour	2,200	TOTAL	797,200

NOTE: Special Regulation Areas: Allegheny, 38,000; Bucks, 20,000; Chester, 20,000; Delaware, 5,000; Montgomery, 10,000; and Philadelphia, 500.

FIRST DAYS FOR ANTLERLESS APPLICATION

By Mail

Antlerless License (residents)	August	2
Antlerless License (nonresidents)	August	16
Surplus Antlerless, where authorized	August	23

Over-the-Counter

Regular and Surplus Antlerless License, where authorized	November	1
Regular and Surplus Antlerless License, Special Regs. Areas	August	23

Elk released from holding pen

THE 17 ELK captured near St. Marys and taken to a holding pen in western Clinton County were set free in their new surroundings on April 5. The next morning the elk were in four separate groups, and the farthest group from the release site had traveled about 1½ miles. The 17 elk consist of 14 cows and calves captured in the corral trap

and three adult bulls immobilized and moved to the release site.

Another 31 elk from the 1998 release and the calves they produced last summer continue to stay in the general area of the release site. None of the elk has moved back to the areas from where they were trapped more than a year ago.

25-YEAR CLUB

The Game Commission enjoys a tremendous spirit of dedication and commitment among its employees. Here are the most recent PGC employees to complete a quarter century of service.

Robert W. Hodge
Southwest
Game Farm
Superintendent
New Bethlehem



John A. Byerly
Forest Program Manager
Bureau of Land Management
Harrisburg



Roger A. Romesburg
Game Lands
Maintenance Worker
Rockwood



James R. Hickernell
Game Lands
Maintenance Worker
Wernersville



Barbara S. Eichelberger
Clerk Steno 3
Bureau of Administration
Mechanicsburg



Kristy A. Noble
Clerk Typist 3
Bureau of Land Mgmt.
Harrisburg



Maurice D. Bieber, Jr.
Wildlife Maintenance
Propagator
Trout Run



Timothy A. Marks
Game Conservation
Officer Supervisor
Milroy



Not pictured are Gerald M. Piotrowski, Assistant Superintendent, Game Farm, Douglassville; Steven Reifsnyder, Game Lands Maintenance Worker, Boyertown.

New license fees to take effect

NEW LICENSE FEES go into effect July 1 and feature some significant changes. An adult resident hunting license will cost \$20; a resident junior license, \$6 and a resident senior license, \$13. A nonresident hunting license costs \$101, while a nonresident junior license costs \$41. An archery license costs \$16 for residents, and \$26 for nonresidents. For muzzleloaders, a resident license costs \$11 and nonresident, \$21. A bear license costs \$16 for residents, and \$36 for nonresidents.

For an antlerless (and surplus) deer license, the cost for residents is \$6 and for nonresidents, \$26.

For furtakers, a resident furtaker license costs \$20, a resident junior license, \$6, and a resident senior license, \$13. For nonresidents, a furtaker license will cost \$81 and for junior nonresident furtakers, \$41.

Resident senior lifetime licenses for hunters and furtakers are \$51 each. New this year is a resident senior lifetime combination license. It costs \$101 and includes hunting, furtaker, archery and muzzleloader privileges. These lifetime licenses, and resident landowner licenses (\$4), are available

only at PGC offices. There's also a new junior combination license, which also includes hunting, furtaker, archery and muzzleloader privileges. This license costs \$9 for residents and \$51 for nonresidents, 12 through 16 years of age. A nonresident 7-day small game license costs \$31.

A permit for hunting migratory birds costs \$3 for residents and \$6 for nonresidents.

Qualifying resident landowners may purchase antlerless deer licenses for \$6; for qualifying nonresident landowners, an antlerless deer license costs \$26. These are available only at county treasurer offices.

Rounding out the antlerless deer licenses are resident armed forces and resident disabled veterans. These cost \$6 each, and are available at county treasurer offices. Also available at county treasurer offices are resident disabled veteran hunting and furtaker licenses, for which there is no charge.

All replacement licenses cost \$6 each, and all license fees here include a \$1 license issuing fee.

This is the first increase in license fees since 1985.

Middle Creek programs

AN EXCITING lineup of programs is again planned for the Middle Creek Wildlife Management Area.

On June 9 & 10, LMO Scott Bills will present a program on the recovery of the bald eagle in Pennsylvania. Scott will detail the efforts of the Game Commission on behalf of this bird, our enduring national symbol.



On June 23 & 24, Senior Naturalist Laurie Goodrich will conduct her excellent program on Hawk Mountain.

On July 7 & 8, Eileen Muller of Tri-State Bird Rescue & Research, Inc. will present "Oil Spills and Wildlife."

Programs are free and begin at 7:30 p.m. The Middle Creek visitors center is south of Kleinfeltersville.



continued from page 2

reminder that they are hunting's biggest draw. And if you're going to manage wildlife with hunting license revenues, you must have an abundant supply of deer.

My career — in fact, this agency's very history — has been accentuated by changes to deer management and deer hunting. In the early stages of my career, the Southwest Region had the state's smallest deer harvests, now it leads the state. Hunters back then were limited to one deer a year, now most have an opportunity to take two. In the late '50s and early '60s, fluorescent orange was just an idea; today it's a safety standard. When I started with the Game Commission, I hardly knew anyone who had a bow; now one in three hunters uses one. And, finally, back then an adult license cost a little more than \$3. Beginning this year, that cost will be \$20.

The hunting license fee increase campaign of the past few years will probably serve as this agency's most memorable accomplishment while I served as executive director. Granted, there have been other important achievements. For instance: annual meetings with PGC staff and nearly every statewide wildlife organization; the Game Commission's 100th anniversary; the development of special youth hunting seasons; the elk trap-and-transfer program and management plan; the agency's strategic plan; the creation of a Game Commission Internet home page; the Deer Management Working Group; established a Deer Management Outreach Committee; and the just approved wild turkey management plan.

Campaigning for our most recent hunting license fee increase, however, was an incredibly long and, at times, a very trying crusade. But thanks to hard work by employees, sportsmen and legislators, we eventually got that long-overdue fee increase. Wildlife and Pennsylvanians will surely benefit from this important accomplishment.

On a closing note, I'd like to thank the commissioners and Game Commission employees for helping to further the cause of wildlife conservation while I served as executive director. A person couldn't ask to work with finer people. I walk away knowing Pennsylvania's wildlife is in good hands. I know all of you will continue to fight the good fight for wildlife. It's what we do, and passionately, I might add. That's reassuring.

Thank you and God bless you one and all.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187	Southcentral — 814-643-1831
Southwest — 724-238-9523	Northeast — 570-675-1143
Northcentral — 570-398-4744	Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

In the outdoors you never know what's just around the next bend. And the not knowing part is what keeps us intrigued and coming back for more.

The Essential Element of Surprise

ANIMALS AREN'T supposed to be blue, at least not the ones without feathers. Not this brilliant, bluer-than-blue blue; not looking like an enameled brooch that's come to skittering life.

My husband and I had stopped at Greenwood Furnace State Park, a little southeast of State College, while taking a leisurely drive through the area's expansive state forests and numerous state parks. We're interested in history as well as wild-life, so visiting the site of the old ironworks was as inviting as walking park trails, before we submitted ourselves to the hours left of the journey home.

The iron furnace is still largely there. Unless you have an interpretive brochure or stop and read the signs, you might think the blunt, stone tower, with its peaked archways, is part of a ruined fortress. The furnace is large enough to walk into and through, enhancing the castle-like feel of the structure. It's cool and damp and shadowy in there, too.

PENNSYLVANIA isn't exactly a loon state, and seeing them as they journey through our land on their way to nesting or to over-wintering sites is unpredictable.

As we emerged, a flicker of movement on the outside furnace walls arrested me. "I know I saw something move there," I said to my husband. "Something little and quick, and, you're not going to believe this, blue." But there was nothing to be seen on the stone wall.

We rounded the corner, to another side of the furnace, and even he saw the quick, blue motion. Evidently our movement was frightening away whatever was on the rocks, so we stopped and held very still. Then we saw them, up and down the furnace face — lizards with bright blue tails.

"Well, this is a new one on me," I told him. I'm no biologist and only a very amateur, just-for-fun naturalist, but I consider myself reasonably good at identifying much



Bob Steiner

of Pennsylvania's wildlife. Through the years, I've seen many species, from common deer and turkeys, to rare otters and black terns, even oddities like moss animals. I'm familiar enough with the cold-blooded creatures to tell a pickerel frog from a leopard frog, but until that day I had never seen a reptile other than a snake or turtle in the state.

A word popped into my head. "It's some kind of skink, I think," I said, rhyming unintentionally. I got as close as I could to one for a better look. It might be a long time before I was surprised by wildlife like this again. The skink was several inches long, flat and delicate looking. It reminded me of a salamander, except for its tiny scales. The body was blackish

brown, with creamy "racing stripes" that started at its nose and ran backwards. The long, slim, pointed tail was slick, intense blue, jewel-like against the gray rock. It was a skink, for sure, but which one?

"Maybe they know more about it at the park visitors center," I suggested. They did; visitors must ask lots of questions about the odd-colored reptiles. The correct identification was "five-lined skink" (gee, I hadn't thought to count the stripes), and the furnace area is a well known place to see them.

I looked the skink up in my amphibian and reptile identification books at home, and learned more. The five-lined is a daytime-roaming reptile that likes humid woods, and eats spiders, insects, worms and such. As an adult it grows 5 to 7 inches long. The ones we saw were smaller, and that, I read, explained the blue tail. In the five-lined, and some other skinks, juveniles have blue tails, which fade to "normal" skink color as they mature. I wondered what ecological or evolutionary value the blue tails have. I also read that during the

skink's spring breeding season, the male's head swells and turns reddish orange — surely something to see! The young hatch from eggs from mid-summer to early fall, at about two inches long. A clutch had probably hatched near the furnace, and we were lucky enough to see the youngsters at "play."

Why am I still so excited about something as simple as skinks? Because they brought the essential element of surprise to my day afield.

Whether I'm hunting or hiking, canoeing or bicycling, even just dawdling around the remains of an antique iron furnace, mostly what keeps me going back for more is the opportunity to be surprised. Meeting the unexpected, the new and

never been seen before (by me) is an undeniable draw to going outdoors. I believe the element of surprise is absolutely necessary to keep the spark of intrigue alive in our interest in the natural world. Simply, I can't wait to see what I'll see next.

Like loons. Pennsylvania isn't exactly a loon state, and seeing them as they journey through our land on their way to nesting sites far to the north, or to overwintering locations to the south, is unpredictable. What a surprise then to unexpectedly find them at our local park lake, on an evening stroll that my husband insisted on ("You need some time away from that computer"). And not just one loon, but two dozen or more, swimming in pairs, loose flocks or singly, preening, diving and paddling. Luckily, we'd brought binoculars — a pair for each of us. We sat on a park picnic table, watching the big, fish-eating birds pop out of sight below the surface and bob up again, sometimes many yards from where they started. With the field glasses, I could see their red eyes, a hallmark of the loon family, and reportedly a help to their

Whether I'm hunting or hiking, canoeing or bicycling, mostly what keeps me going back for more is the opportunity to be surprised.

seeing well in the depths. Loons are very agile in the water, but can barely waddle on land, because their legs are set so far back on their body. With the binoculars, we could see their head is not flat black, as some artists depict it, but iridescent with greens and violets. What a surprise to find them on the lake today, not just the too-common Canada geese and usual mallards.

Sometimes the surprise comes when you get to finally witness wildlife behavior that previously you'd only read about, or seen in photos and videos. You know it exists, like the skinks, but it isn't real to you, not personal, until you have your own private showing.

I'd heard about bucks making scrapes, but I'd never witnessed the rut routine until one surprised me by making a scrape in front of me, while I was quietly waiting with my .22 for squirrels. The 4-point pawed and sniffed the ground, worked his slim antlers through an overhead branch, licked and chewed the limb, and rubbed the branch against the side of his face, along his eye. Because I was prepared for what I was lucky enough to see at last, I knew that the muzzle-rubbing was about putting scent, from a gland in front of the eye, onto the stick. It wasn't that he had an itch.

Being prepared to be surprised may seem like a contradiction, but in wildlife watching it's a way to more fully understand and enjoy what chance one day awards you. I'd browsed through my wildlife I.D. books enough that I didn't know what kind of skink, but I was close to naming the animal. Likewise, I knew that loons don't nest in Pennsylvania (its highly improbable), but I was aware that the birds pass through with brief stopovers, spring and fall. And I'd read enough about whitetails to be able to interpret the buck's antics.

I know an educated biologist or even a more-well-read amateur naturalist would have been able to give additional meaning to the surprise gifts of these sightings. Becoming better educated about the wildlife we see is another reason that surprise is so

Moss animals are aquatic organisms correctly called bryozoa. Most are marine organisms. In freshwater, they normally form in clear, warm, still, sunlit, unpolluted water. They're harmless.

In the water, they look like a round, gelatinous blob the size of a softball or basketball, tannish on the outside — where the bryozoa colony lives. When the formation is cut, it's clear jellylike inside. Sometimes the colony grows attached to underwater stumps or logs.

Watch for them around the end of summer, as you paddle over the water near shore, especially if you've had a spell of hot, clear, still weather.

essential. It sparks us to go back home, to the library, to the Internet, to write wildlife agencies, and learn even more about what we saw. The skink sighting started more questions than I could answer, and I went right to my books for the answers — before unpacking. I wouldn't have been as curious or so eager if I hadn't been surprised by an encounter with this new animal.

Expect to be surprised every day you're afield, with firearm and bow, or without. Prepare to make the most of the surprise by investing in and carrying a small pair of binoculars. You'll see new behaviors and will be better able to identify "that strange looking bird" afterward if you can see it "up close," without having to move nearer and risk chasing it.

Because I happen into more new bird species than any other type of wildlife, I keep an extra bird identification guide in the car. If I'm going on a trip that I know will include time outdoors, I add other field guides as travel gear, including guides to the insects and butterflies, wildflowers, trees and other plants, and — from now on — amphibians and reptiles. These, I've found, are essential for meeting surprise, and there's always room in the suitcase — I'd rather leave the hairdryer home. □

Behind the Badge

By Gary Toward

Westmoreland County WCO



WCOs don't spend all their time chasing poachers. A lot of time is devoted to educating the public.

Behind the Booth



FOR MANY *Game News* readers, Field Notes are the first thing they read each month. From there, individual interests take readers in different directions throughout the magazine until the entire issue has been read. I usually go to the "Behind The Badge" column to see what activities other WCOs have been involved in. Law enforcement articles are very exciting, and they generate discussion between other officers as to how they might have handled the same case. For us, the "Behind the Badge" column is an effective learning tool.

There are, however, many other aspects of being a WCO that many people aren't aware of. Few realize how many educational programs we present to students, church groups, youth groups, and other civic and

fraternal organizations each year.

Community day celebrations are events where the Game Commission is often invited to set up a display. Depending on the number of communities in a district, some officers may receive dozens of requests to attend and participate in these events each year. We all enjoy attending a community day festival, to spend a few hours visiting with neighbors, looking at local memorabilia, and eating at the specialty food booths. I try to attend a couple celebrations each year, and use either a tent display or a Game Commission display trailer.

The Centennial Celebration of my adopted hometown of Hyde Park was one of my favorites last year. Planning for these events begins well ahead of time. It's difficult to schedule two days over a weekend during a busy summer, but the commitment was made to the centennial committee early in that year. Mel Schake, the Southwest Region I&E supervisor, updated us on current topics we should be prepared to discuss, scheduled equipment and display materials, and helped us decide what handouts to take along. Before long, I had a plan for a display. As the main display topic, we selected the elk trap and transfer project that many of us had participated in the previous winter. To fill out the perimeter of the display, we used cavity-nesting boxes

from the *Woodworking for Wildlife* book and a selection of taxidermy mounts appropriate for the boxes to round out the display. A variety of brochures were on hand for distribution.

Participating in functions like this would be impossible without the support of the deputy WCOs. Manning a booth for 12 or more hours a day is one thing, but also tending to other district business is another. Deputies not assigned to the display booth are busy handling the daily duties within the district. I also have a standing invitation to my Hunter-Trapper Ed instructors to help at exhibits in their area, and many take the opportunity to advance the topics of sportsmanship, education and firearms safety.

A warm August weekend proved perfect for an outdoor, once-in-a-hundred-years celebration at Hyde Park. Hyde Park is not a large town, but Police Chief Henderson estimated about 2,000 people attended — nearly four times the town's population.

It's surprising how each visitor focuses on something in the display that peaks his or her interest. This usually starts a conversation, which is why we were there to begin with. Fairs and other exhibits are great ways for us to provide information about the Game Commission and the many activities we are involved in. Although some folks at Hyde Park were interested only in hunting, many nonhunters were interested in the reintroduction programs, land purchases, management activities and other wildlife related matters. Not surprising, though, was the number of people that didn't realize the PGC does not receive tax money from the general fund. "That's incredible" was a common statement.

Many Boy Scout and Girl Scout troops had displays at this festival, and every scout who visited our display was given a *50 Birds and Mammals of Pennsylvania* book. One young scout came to talk several times each day. Late in the afternoon of the second day this enthusiastic boy spoke about the

scouting adventures he was going on and the achievement badges he was going to earn. One of the badges required building something from wood. He admired the bluebird box I had on display, and said he would like to build one. (I knew long in advance that I was going to give him a kit.) I enjoyed listening to this young man tell me about how much he enjoyed the outdoors. That afternoon, on what I thought might be his last visit, I handed him a bluebird house kit and told him to have fun putting it together. The boy was ecstatic. I'm sure by now there is a new nesting box somewhere in Hyde Park hosting a pair of bluebirds.

Another person that stopped to talk was just a bit older than my scout visitor was. Irvin Smail of Leechburg made a special trip home to get his collection of hunting licenses and returned to show me. He has every one of his licenses since 1940, including a 1943 Special Deer Hunting License. He talked of many adventures and the memories he has accumulated over the past nearly 60 years of hunting. Mr. Smail also does wood carving. He brought a beautiful carving of a woodcock with chicks. It was a fine example of craftsmanship, certainly something to be proud of. As we spoke I couldn't help but think of the scout. I wondered if in 60 or 70 years, at some community day celebration, a gray-haired man, his face weathered from years of outdoor adventure, would be showing off something he is proud of to conservation officers at a booth. I wondered if he would tell a story about a WCO he had met when he was a lad who had given him a bluebird box kit.

To write about every person I met in those two days at the celebration would take volumes. This summer, as you attend a county fair or local festival, look around for your local WCO or a Game Commission display booth. If you do, stop by and chat for a while. These conversations can have long-term effects. See you at the display booth. □

*Spring is a time of rebirth and renewal,
but on Marcia's mountain all is not in
harmony between . . .*

Tree Swallows and Bluebirds

BARN SWALLOWS nested in our barn for years. They arrived the second spring after we started raising chickens and ducks and continued coming for years after we had stopped, but their numbers dwindled as the chicken and duck feathers, which they use in their nests, dwindled.

Two springs ago there were no barn swallows at all. How I missed their swooping flights over First Field and their happy chatter as they perched on the electric line. But I was not without swallows for long. At the end of May a pair of tree swallows appeared. It was only the third time I had recorded them on the mountain. Unlike the others, though, this pair stayed, contradicting the common behavior patterns of tree swallows.

Most tree swallows return from their main wintering range in Florida and along the Gulf Coast by early April, when they can secure a nest site. Cavity nesters, they usually choose an open site near or on a wetland. And they prefer to nest in the vicinity of other tree swallows. Yet our free-thinking pair had arrived alone in late May and was clearly interested in nesting on a dry mountaintop field.

They hung around the bluebirds' nest

box for several days. On the second of June, as soon as the bluebirds fledged from their box, the tree swallows claimed it. Where would the bluebirds raise their second brood? I felt torn between championing them and welcoming the tree swallows. But that very evening a neighbor from the valley, who had never visited us before, hiked several miles up to our home and presented us with a brand new bluebird box he had made. Never had a gift appeared at a more opportune moment. The next day our son, David, mounted it on a power pole 140 feet away from our old nesting box pole. To our relief, the bluebirds raised a second brood in it.

Meanwhile, a day after the tree swallows claimed the old bluebird nest box, the male performed what looked to me like a mad dance, but what is commonly known as his "flutter-flight," hovering with rapid, shallow, wing beats near the female, coming closer and closer to her and finally mating. Then he flew off and landed a hundred feet beyond her on the wire while she ruffled and cleaned her breast and neck feathers. Later, the male clung to the side of the box and peered in.

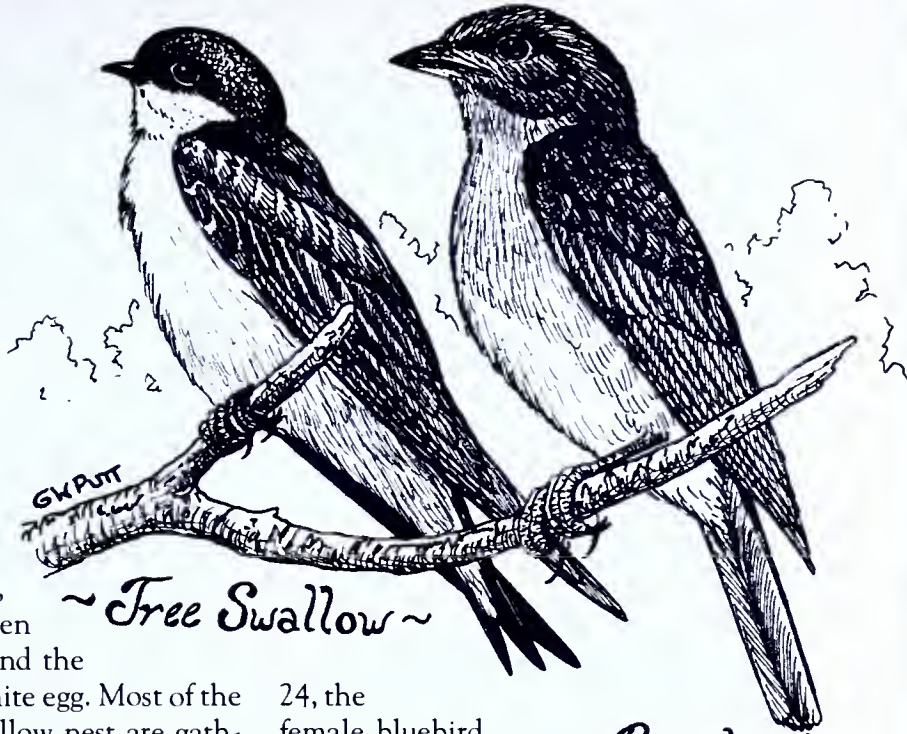
That day I tried to clean out the old nest

box, but the tree swallows defended their nest fiercely, diving at my head and calling loudly. Unlike the gentle bluebirds, which had never protested my presence near their nest, tree swallows are extremely aggressive when trying to claim a nest. Already the old bluebird nest had been lined with many black, white and gray chicken and guinea feathers, and the female had laid one white egg. Most of the feathers for a tree swallow nest are gathered and presented to the female by the male. He'll sometimes fly several miles to obtain them. Evidently our male had no trouble finding enough domestic poultry feathers in the farm valley below our mountain to please his mate.

For a month and a half the tree swallows swooped and dove over First Field, seining the air for insects. On July 7 the nestlings poked their heads out of the nest box and called while their parents flew back and forth as if showing them how it's done. But each parent landed on the front of the box to feed them.

By my calculations, if the female had laid the usual five eggs and incubated them the usual 14 days, the nestlings were 16 days old when I saw them at the nest hole. Tree swallows have a long nestling period (at least 21 days), but a short, 2- to 3-day fledgling period. By mid-July they were all gone. No doubt they had joined other tree swallows in a marshy area where insects were more plentiful than they were over our field that dry summer.

Last spring the rivalry between bluebirds and tree swallows over nest boxes took a new turn. On February 19 the male bluebird was singing near the new box, and by the time the tree swallows arrived on April



24, the female bluebird was already sitting on eggs in the new box.

At first the tree swallows poked about in the old nest box and showed no interest in the bluebirds' nest box. Obviously, this was last year's pair. How else could we account for their seeming familiarity with the old nest box?

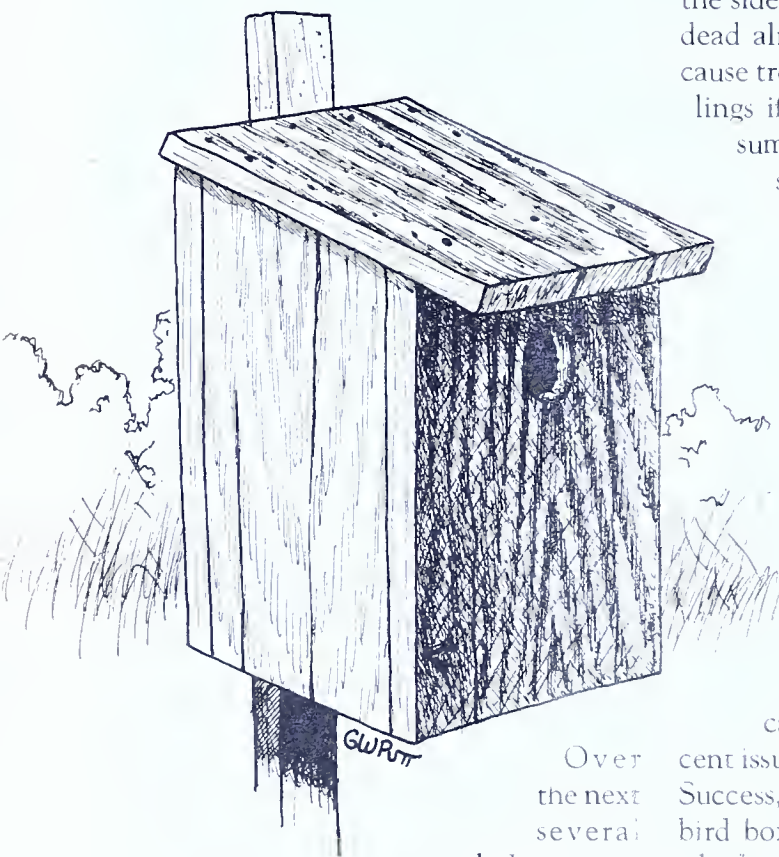
Ornithologists claim that male tree swallows are more faithful to old nesting sites than females. In one study area 66 percent of 179 returning males bred near the same nesting box, while only 33 percent of 195 returning females did so. Most tree swallows are mainly monogamous only during a single nesting season, but researchers have discovered that occasionally a pair breeds together at the same nest site for several years. They believe that such fidelity is to the site not the partner. So I had to suppose that both the male and the female, faithful to the site, had returned together.

But on April 29 another tree swallow arrived, and I watched as two tree swallows battled in the air while a third watched. Tree swallows are known to be very aggressive toward others of their species when defending their territory and a specific nest site. Both sexes fight off in-

~ Bluebird ~

truders, especially before they begin incubating their eggs, and have sometimes severely injured or even killed their opponents.

Tree swallows also engage in infanticide. Replacement males kill young nestlings of a widow before breeding with her, and immature and adult females kill another female's nestlings, so they can have a better opportunity to breed with the resident male.



Over the next several weeks I occasionally saw three and sometimes four tree swallows swooping over the field. How had they independently found our dry mountaintop, or could they have been offspring from last year's nesting?

By the first of May what I thought was the original pair were already gathering nesting material and putting it in the old nest box, and on May 18, as we ate breakfast on the veranda, we watched the swallows mate on the electric wire above the old nest box. We could also see hay stick-

ing out through the cracks in the box.

The following day, as I walked across First Field, I noticed the bluebird pair flying into the unoccupied kestrel box several hundred feet away from their own box. Why would they be interested in the kestrel box? I remembered then that two days before I had watched a bluebird inside its nest box fending off a tree swallow.

I rushed over to the bluebird nest box to check the nestlings. A rank odor filled my nostrils. With David's help, I unscrewed the side of the nesting box and found four dead almost fledgling-size bluebirds. Because tree swallows will kill bluebird nestlings if they gain access to a nest, I assumed they were the culprits. As tree swallows are known to do, they may have wanted the other box for breeding; there was at least a third and possibly a fourth tree swallow in the area.

"Nature red in beak and claw," David said, although we could not be certain that the tree swallows had killed the bluebirds, because they were too decomposed to examine properly.

We cleaned out the nest box and worried about losing our bluebirds. Then David recalled an article he had read in a recent issue of *Birder's World* called "Sunroof Success," about removing the tops of bluebird boxes to keep out house sparrows, which need a solid roof over their heads while nesting. Maybe, he thought, it would work to keep tree swallows out as well, although the author of the article claimed that other desirable nest box occupants, including tree swallows, would use open-top boxes.

Nevertheless, we had nothing to lose by trying, so David replaced the wooden roof with two layers of hardware cloth and drilled a hole in the bottom of the box to provide drainage. He did not, however, lengthen the sides of the box to 12 inches

to make it more predator proof, as the author suggested.

The following evening I checked the box and found the beginnings of a bluebird nest. Three days later the female laid her first egg. Then it showered off and on for several days, and I worried that the nest would get soaked. But the author had said that the bluebird nest would easily shed water and he was right.

The bluebirds kept laying eggs — five in all — and by May 29 the female was sitting on them. The female tree swallow was sitting on five eggs in the old nest box as well. Peace reigned between the birds and their nest boxes, and I saw no more aggression throughout the remainder of the season.

All five of the tree swallows hatched on June 7, and three of the five bluebird eggs hatched on June 9. Despite bouts of heavy

rain during the bluebird nestling period, all three thrived and fledged.

The tree swallows also thrived, and often there were more than two adults hovering around the nest box. But there were no fights between the tree swallows, either.

On June 24, as David walked past the tree swallow nest box, he was dive bombed over and over by screeching parents. The next day the box was empty and all the tree swallows spent the next week visiting together on the electric wire or swooping over the field, their iridescent blue backs and snowy white breasts gleaming in the sunlight. And then they were gone for the year.

I look forward to the return of the tree swallows and the bluebirds next year, and I hope that David's "sunroof" solution will keep each species in their own nest boxes. □

Fun Games — By Connie Mertz

Find the Mammals

Circle the well-known Pennsylvania mammals. Then copy the letters not circled in the space below. (Words do not go diagonally.)

M I N K W R A E B K C A L B E L K
H I L E S A E W T R A C C O O N E
T A I R E V A E B O B C A T A B L E
K C U H C D O O W S Q U I R R E L S
D F O X E S K U N K N U M P I H C D E
E H A R E T I B B A R P O R C U P I N E R

In 1920 there were only about 500,000 nationwide. Today, there are more than 14 million.

answers on p. 64

Practice makes perfect, and to see results in the field, practice needs to be year-round. Making sessions enjoyable will help you stick with it.

Making Practice Fun

THE FIRST SHOT I ever took at a deer during archery season occurred when I was barely out of high school. A few times a week between classes, a college classmate and I hunted deer in the Pocono Mountains near the Lehigh River. This was before portable treestands were popular, so we hunted from the ground. My chosen hunting area was a hillside covered in oak and beech about 300 yards above the river, where I could watch one of several deer trails winding through the hardwoods and laurel leading to the river.

One evening just before sundown, I leaned against the trunk of a large white pine and watched a doe feeding along the hillside. The doe was unaware of my presence, because it was upwind and so engrossed in feeding. It wasn't long before it moved past me, presenting a good quartering away shot. I drew back and shot. The arrow sailed about two feet over the surprised doe's back, and in an instant the deer was gone.

I couldn't understand how I had missed and tried to figure out what went wrong. I thought I had practiced enough prior to the season opener, but it was apparent from



3-D ANIMAL targets add interest and realism to practice sessions. Shooting 3-D targets at unknown distances improves range estimation skills.

my poor shot that I wasn't up to the task. I vowed to do everything I could to become a better shot. What I needed was practice and lots more of it.

By September of the following year I had practiced more than ever before. The results were the same, though. I missed another easy shot. Despite my best efforts, something was wrong. I continued practic-

ng in the off season until finally, during my fourth season of bowhunting, I dropped my first deer, a nice doe.

Granted, a modern recurve, properly spined arrows and a crude sight improved my shooting considerably, but it wasn't

until I began to practice year-round that things really changed. Today, if I get a shot at a deer, I'm confident of the results.

All of us should strive to improve our shooting accuracy, and practice is a big part of that plan. We've all heard the expression practice makes perfect, yet many bowhunters neglect to follow this

simple formula. Without consistent shooting skills, success in the deer woods may be sporadic at best. The bowhunters I know who consistently kill deer all have one thing in common: They never have an off season when it comes to shooting.

Throughout the winter, spring and summer, they hone their skills until the process of drawing the bow, anchoring, aiming and releasing the arrow is as natural as driving a car. This is what I was missing in my early years of bowhunting. When a deer appears in hunting season, if a hunter is pausing to think of what needs to be done, the result is often a miss. The act of shooting at all reasonable hunting ranges must be automatic.

Unfortunately, many bowhunters wait until August or even September before picking up a bow in anticipation of the coming season. To develop good shooting skills, repetition

SHOOTING with a partner makes practicing fun. Friendly competition and informal shooting games will keep bowhunters sharp.

is the key. Also, shooting a bow and arrow requires a degree of physical ability. Arm and shoulder muscles must be up to the task. As with other physical activities, archery skills suffer from neglect if not kept in tune.

Bowhunters who consistently take deer all have one thing in common: They never have an off season when it comes to shooting.

To be as good a shot as possible, practicing year-round is the best way to keep muscles in tune and your shooting eye sharp. Practicing as little as twice a week in the off season can pay great dividends in hunting season when that buck comes into range.

Good shooters shoot well because they are relaxed, and relaxed shoot-

ing is a learned condition. Shooting must be done often enough so that the shot becomes automatic. In addition, good shooting form must feel natural and become almost second nature. The way you hold the bow, draw the arrow, anchor and release are all essential elements for making a good shot. Additionally, practice on a sustained basis allows us to objectively analyze our shooting form in our effort to become better shots.

Good practice sessions, however, involve more than shooting several dozen arrows into a target. The fundamental purpose of practice is to become a better shot



and to do that means every arrow must be shot well. Shooting a set number of arrows each day is a start, but a shooter's physical condition and mental outlook are far more important to good shooting than slinging dozens of arrows all over the target.

The idea of practice is to concentrate on each shot, making it as perfect as possible. Some days I may shoot only a dozen arrows. If they all hit the target in a tight group, I'm satisfied and may quit for the day. Quitting on a positive note enhances confidence and results in better shooting the next time out. If the arrow group spreads out somewhat, I shoot more arrows in an attempt to analyze what's wrong. There is nothing more discouraging than arrows hitting all over the target. This is usually due to tired or sore muscles, lack of concentration or a negative mental attitude. If the poor shooting continues without improvement, sometimes quitting for the day and shooting the next day helps restore concentration and a more positive mental attitude.

Wishing to be a better shot won't make it happen, but good practice will. Practice can be approached enthusiastically only if it's fun. I prefer making practice sessions interesting, so the time invested results in improved shooting.

A friend of mine has a large barn where we stand outside and shoot at targets set up inside. It's a sort of indoor-outdoor range. We can even turn on the barn lights for night shooting. As a backstop, we loosely hang large rugs from a clothesline. To make things interesting, we often use smaller targets and shoot inside 20 yards. If things get dull, hanging some clay targets from a clothesline strung in front of several hay bales can liven up the practice session. We hang the targets using monofilament fishing line and duct tape. From normal shooting distances the targets appear to be suspended in midair. Currents of air keep them twirling and moving, making difficult targets. Shooting at these targets increases concentration and

gives satisfaction when one shatters after being hit.

Shooting at balloons is another good way to keep things interesting. Balloons have the advantage of coming in many sizes, and just as with clay pigeons, they provide instant satisfaction when hit. By



YEAR-ROUND practice is necessary to develop and maintain consistent shooting form.

using a different color balloon for each shooter, keeping score is easy. The only problem with breakable targets is that they have to be replaced so often.

Shooting a round of arrows at breakable targets while kneeling or sitting can simulate conditions likely to be encountered when hunting. Better yet, try shooting at a 3-D animal target under windy, rainy or even cold conditions. Shooting under such adverse conditions adds realism to the practice session.

Shooting from an elevated platform, such as a hayloft or ladder, further simulates actual hunting conditions. This should be done with two people. One participant shoots while the other stands safely out of the way, retrieving arrows at the con-

clusion of each round. After a set number of rounds, the participants change places. The point of impact of arrows shot from an elevated platform, such as a treestand, change when shot from the ground. If you hunt from treestands, practice sessions must include some shooting from an elevated position. Most archery clubs have elevated platforms that enable shooters to practice shooting at realistic 3-D targets from high angles.

Concentrating on each shot is fundamental to good shooting accuracy, and a fun way to improve shooting concentration is to shoot at long ranges, 50 to 60 yards. Admittedly, this is not the range to shoot at a deer, but you will be surprised to find how long it takes an arrow to travel this distance. After the shot, continue the follow-through until the arrow strikes the target. Shooting at longer than normal ranges improves concentration and makes short shots seem easier.

Playing games such as tic-tac-toe can be fun when two shooters practice together. I have a polyethylene foam target set up in my backyard and make a tic-tac-toe pattern by taping black electrical tape in a grid on the target face. To play, shooters can shoot at the square of their choice and "get" the square by placing their arrow within the grid. If a shooter's arrow hits a square already occupied by another arrow, the shot is lost and the next shooter takes a turn.

Some shooters advocate stump shooting to lend variety to their practice session. This may be good practice but can be hard on arrows. I have never tried shooting my good arrows into stumps, because I'm afraid of damaging them either by the impact or by burying them so deep into the wood they can't be removed without damage occurring. A better way to achieve the same result is to use a cubical polyethylene foam target, available in most sporting goods stores where archery products are sold. This type target has rounded edges that allow it to roll, presenting a different face with each hit.



SHOOTING in hunting clothes and in a woods setting adds realism to practice sessions.

Cabela's has a target they call the Stumper Kick Target. It's a 12-inch cubical target with rounded edges that you can kick into a field or wooded area. Shooting at the target where it stops is a great way to enjoy the principle of stump shooting while being easier on your arrows. The target is even color-coded, enabling shooters to keep score by hitting the different colored areas of the target.

For me, one of the most enjoyable ways for making practice fun and for getting the most realistic experience is to shoot 3-D targets. The targets simulate a variety of game species such as deer, elk, turkeys, antelope, and even smaller targets such as raccoons and foxes. Most archery clubs hold several 3-D shoots each year. Targets are placed in an appropriate woods setting where shooters must estimate the range to each target from a predetermined shooting stake. In addition, some clubs even have elevated tree platforms to simulate hunting situations.

To make shooters compete on even terms, our local club has a variety of classifications for each shoot. For example, finger shooters compete for trophies with

other finger shooters. Bare bow shooters compete with other bare bow shooters, while shooters who use sights compete with others with the same preference.

Participation in 3-D shoots develops the shooting skills necessary for success in the deer woods. While practicing at a bullseye target is excellent for developing shooting form and concentration, practice with 3-D targets is invaluable for range estimation and concentration on the kill zone of the actual game animal.

Finally, in some areas, an interactive computer generated shooting game is featured at some local archery pro shops. The participants use special, blunt-tipped arrows and shoot at big game animal images on a screen. The hunting conditions appear real, and many shooters forget the conditions are simulated and may actually experience buck fever when facing a target that may turn or run at any second. I've tried shooting one of these virtual hunts and found the practice not only to be fun but addictive as well.

The fundamental purpose of good practice is to become a good shot, especially under the pressure of hunting conditions. Developing good form on the practice



JOHN SINKOVIC, Toledo, Ohio, with his 7-point buck taken near Kane, McKean County, last year. Only with regular practice was John able to develop consistent shooting mechanics and build confidence to make the shot.

range means shots at game animals will become automatic and should result in more kills. Practice does not have to be laborious and dull. Joining in some friendly competition with a friend, or taking advantage of all that an archery club offers, prepares you mentally for close encounters at game animals. Practice well and you'll shoot well. Make practice fun and you'll shoot more often. What could be better? □

Books in Brief

(Not available from the Game Commission.)

A Hunter's Guide to Mourning Doves, by Bob Conrad, published by Beaver Pond Publishing, P.O. Box 224-PR, Greenville, PA 16125, 28 pp., \$4.50 shipping included, PA residents add 6% for sales tax. This book covers the mourning dove's habits and traits, and provides the information needed to become a successful hunter of this popular game bird. Bob Conrad has studied doves and the hunting techniques needed to bag them for years. He has boiled down his mourning dove knowledge into this comprehensive work of nonsense methods and techniques.

Accuracy is more or less subjective; it all depends on how much is needed. But if more is needed, there's plenty of choices on how to make ole "Betsy" shoot straighter.

Accuracy Enhancements

HELEN AND I were eating lunch in a restaurant when a man introduced himself and asked if I would answer several questions after we finished eating. Almost everyone I meet seems to have a question about firearms and shooting, but that doesn't bother me. I told him to meet me in a waiting area just outside the restaurant. A half-hour later, he lit his pipe and fired his first question, "What's your advice on getting into reloading without mortgaging the farm? My son and I want to set up a small reloading shop for our own use. I've checked around some, but I simply don't know where to start. Everything is so confusing, and money is a major consideration."

"What's your second question?" I cut in.

"It has to do with accuracy. We're not competitive shooters, but we are avid woodchuck hunters. We would like to reload for long range chuck shooting. What can we do to improve accuracy?"

To answer his first question I told him there were two ways to solve his problem. The first was to buy used equipment, which would be somewhat less expensive, but would consume more time finding the needed items. Although this is basically the way I got into reloading, I ended up with a conglomeration of equipment from vari-

ous manufacturers. It isn't the wisest road to take.

The second approach involves buying a reloading kit that contains all the equipment necessary to set up shop. And I suggested several manufacturers that produce reloading kits, and suggested he consider the RCBS Chucker Master Reloading Kit. I explained that I was more familiar with it than any other kits.

"What does such a kit contain and how much does it cost?"

"I'm not certain what the kit contains, but I know it includes a Rock Chucker reloading press, a reloading scale and uniflow powder measure. It also has a reloading manual, case trimmer and an automatic primer feed combo. Also included are some incidentals, such as a powder funnel, deburring tool and loading block. If I recall correctly, the kit is well under \$400.

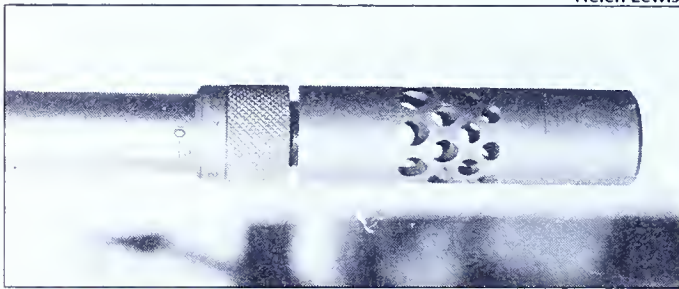
That's a lot of money to shell out at one time," he said.

"I realize that, but remember you're getting all the equipment needed to start reloading from one manufacturer. As I mentioned, buying used equipment will take much longer and, in the end, there might not be a significant savings."

"It's probably wise to buy a kit that includes all the necessary gear and instruc-

tions on getting started," he said after a few seconds of thought.

"Your second question about accuracy is a lot tougher to answer," I told him. "First, you have to determine how much accuracy is needed. A big game hunter, for example, doesn't need the accuracy that a woodchuck hunter needs. To go a step further, a woodchuck hunter doesn't need the level of accuracy required to win a national benchrest competition. Accuracy is more or less subjective; it all depends on how much is needed."



Helen Lewis

THE BOSS (Ballistic Optimizing Shooting System) permits adjustment of barrel length, which would affect vibration patterns and could help enhance accuracy with various weight bullets.

"I've read a good bit about accuracy enhancing equipment, and I'm somewhat fascinated by barrel freezing. Do these things really contribute to accuracy?"

"You've already mentioned cryogenically processing a barrel (deep freezing), and I suppose the other things you've read about include barrel stabilizers, fire-lapping and moly coating bullets," I replied.

"Exactly," he answered. Would you consider any of these?"

Instead of going into the details of our conversation, which lasted more than an hour, I'll touch briefly on the accuracy items he was concerned about. It's true that today the market is full of accuracy enhancing equipment, and cryogenically treating a barrel is gaining momentum among the shooting clan.

Kathi Fisher, owner of CryoPlus, Inc., 2429 Millborne Rd. Wooster, Ohio 44691, has started a new company that cryogenically treats barrels of rifles, shotguns and

handguns to extend their life. Kathi, who had quite a bit of experience in deep freezing barrels before starting the new company, claims that cryogenically processing improves performance and increases the life of a barrel as much as 200 to 400 percent. She told me some deep-freeze methods only process barrel steel to -120 degrees. She said, "Our innovative Cryo-Processing technology takes the steel beyond deep-freeze to cryogenic levels. The barrel is taken to -300 degrees F in six hours, held there for 10 more hours, returned to room temperature, then taken to 300F for a 1-hour temper." Kathi adds, "In by Friday, out by Monday."

This one-time, irreversible Cryo-Processing application creates a denser molecular structure. The procedure changes barrel steel structure, not just the surface. The result is a larger contact surface area that reduces friction, heat and wear. The cost is \$40 plus \$9

shipping and insurance per barrel.

Admittedly, there are two points of view on deep-freezing barrels, and all the other accuracy enhancing methods and devices have proponents and opponents. There may not be solid evidence that barrel freezing is a major step forward in lengthening barrel life, but its detractors haven't been able to prove that it doesn't. In all fairness, there is a growing interest among competitive shooters that this process seems to have more pluses than minuses.

The barrel stabilizer or muzzle device such as BOSS (Ballistic Optimizing Shooting System) introduced by Browning is creating a good bit of interest. In essence, BOSS is a device that permits adjustment of barrel length, which affects vibration patterns that could, in turn, enhance accuracy with various weight bullets.

BOSS is threaded on the muzzle and is made up of three parts. At its front is a 3-ounce weight that screws into the cen-



MOLY-COATED bullets produce less bore fouling, so a barrel doesn't need to be cleaned as often to maintain its accuracy.

ter section. The center section screws onto the barrel, which has to be threaded for about one inch. At the rear of the center section is a knurled lock nut with a 1-in-10 scale around it. Each graduation mark indicates 1/10th of a turn. The barrel is also marked with a 1-in-10 scale. Each mark on the barrel denotes a full turn. The fact that the BOSS can be adjusted as little as 1/10th of a turn indicates how little adjustment is sometimes needed to reach what Brown-ing calls the "sweet spot" node.

Basically, the idea is to move the "node" closer to the muzzle. The dictionary defines a node as the point, line or surface of a vibrating object, such as a string, where there is comparatively no vibrations." The node is the dead spot in a barrel where there is little or no vibration. Moving it closer to the muzzle stabilizes the vibration pattern.

As always, there is some controversy over the muzzle device, but it's possible the muzzle stabilizer will enhance accuracy. However, according to several .22 rimfire competitors, it's not as simple as it sounds. Each change of ammunition (even different lots of the same ammo) requires new adjustments. Jim Peightal, who builds his own muzzle devices, told me a stabilizer might work to perfection on one heavy barrel .22 competition rifle, but might not work on another rimfire with an identical barrel configuration and ammunition.

Pressure (fire) lapping is firing bullets that are impregnated with different sizes of grit through a fouled barrel. Neco, Box 427, Lafayette, CA 94549, makes kits for various calibers. Rolling a bullet in grit impregnated pastes between two metal plates coats the bullet evenly. For instance, two to five rounds coated with Neco Lap #220 grit (coarse) followed by a few rounds coated with Neco Lap #800 grit (fine) and #1200 polish grit will pretty much clean out a badly fouled bore, according to Neco. It's worth noting that the barrel must be clean before shooting. Neco claims barrel wear is about 0.0001-inch. Pressure (fire) lapping always results in much easier cleaning of a barrel. The instruction manual gives complete details on preparing the bore and how to firelap a barrel. The instructions, of course, must be followed to the letter.

I have to admit that I'm a stranger to the effects of moly-coated bullets. My research on the subject leads me to believe it's rather controversial. Those who favor it sing its praises long and loud. On the other hand, critics are quick to point out that moly coating is not a panacea for all accuracy problems and also produces some barrel wear. The reason I haven't conducted any tests is simply because it would take months of shooting and extensive record keeping before a comprehensive evaluation can be made. It would also be fairly expensive.

Some competitive shooters claim moly-coating improves accuracy while others say it doesn't. From what I have read, moly's prime contribution is less bore fouling. In other words, a barrel doesn't have to be cleaned as often to maintain its accuracy level. I'll leave moly-coating at this point because there doesn't seem to be enough hard facts to make a comprehensive judgement. Time will tell.

I think I answered most of the gentleman's questions in the restaurant. I hope I've answered some of your questions as well. □

In the Wind

By Bob D'Angelo

Rattlesnake strikes are extremely accurate and lightning fast, with 20 out of 21 hitting the bullseye on the first try, and they take only about a half a second to hit their mark, release their venom and get out of the way of any retaliation of the victim.

The 1997-98 duck harvest in the United States totaled 15.8 million, only 50,000 below the record harvest in 1970.

The U.S. Fish and Wildlife Service has recently awarded \$1.37 million in wetlands conservation grants to projects in Maine, Massachusetts, New Jersey and Pennsylvania aimed at conserving some of the nation's most valuable wetlands.

Ducks Unlimited, together with U.S. and Canadian biologists, outfitted 20 Canada geese with transmitters and tracked them by satellite last fall. They found that some birds flew non-stop from Hudson Bay to Maryland — 1,300 miles — in a single day.

A state-by-state duck harvest survey revealed the following average number of birds taken per adult hunter in 1997: Louisiana, 25; Arkansas, 23.45; California, 19.62; Mississippi, 18.75; and Tennessee, 16.45. Florida led Atlantic Flyway states with 14.5. There were 3.48 ducks harvested per adult hunter in Pennsylvania.

States with the most CRP acres as of June 1998: Texas, 3,763,943; North Dakota, 3,469,211; Montana, 3,019,246; and Kansas, 2,791,709.

Once hunted nearly to extinction, the gray wolf has rebounded so well in the lower 48 states that the U.S. Fish and Wildlife Service is going to propose to remove it from the endangered species list.

A new firearms law in Canada that will require nonresident hunters to file a firearms declaration, which costs \$50 and provides a variety of personal and gun information to the government, will not take effect until 2001.

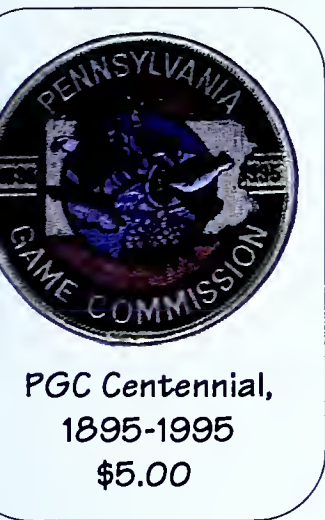
Field-dressing an average white-tailed deer removes about 22 percent of the live weight.

A 3-year-old boy was attacked by a coyote in Sandwich, Massachusetts. The boy suffered bites, scratches and abrasions. Fortunately, the animal — a 40-pound male — tested negative for rabies. Coyotes have been present in Massachusetts for 50 years, and the Sandwich incident is the first case of a human being bitten.

An endangered Mexican gray wolf released in Arizona was killed by a mountain lion and found near an elk carcass that the cat had killed.

Answers: mink, black bear, elk, weasel, raccoon, beaver, bobcat, bat, woodchuck, squirrels, foxes, skunk, chipmunk, hare, rabbit, porcupine.

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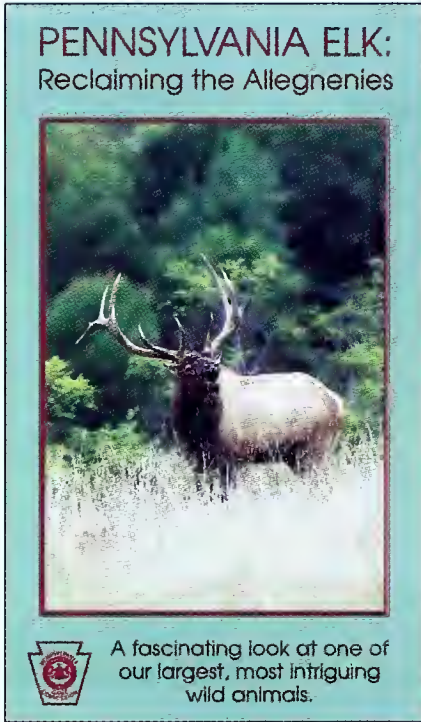
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Start Looking Now

THE IZAAK WALTON LEAGUE of America recently released a report about hunting access on private land. Titled "Hunting Ethics/Land-Access Project," the report is based on the results of four focus group discussions with landowners in Wisconsin, Mississippi, Virginia and Wyoming, and with four groups of hunters in New York, Washington, Oregon and Montana. In addition, corporate landowners and state wildlife agencies were surveyed by mail.

Across the country, finding private land open to public hunting is getting increasingly difficult. Much is lost every year to residential and commercial development. Of lands that remain huntable, landowners mentioned several reasons for closing or limiting access. The most common was simply to control the number of hunters on their property. Lands were also often closed by new owners, for any number of reasons. Another reason is that landowners are looking out for their own hunting interests. Poor behavior by hunters is another factor — and one we can all do something about — but it turned out that landowners in general have positive impressions of hunters. Among corporate landowners, however, vandalism, littering and damage to roads by hunters and other users was a primary reason their properties were closed.

Leasing has become fairly common in some parts of the country, and many feel it's turning hunting into a rich man's activity. According to this report, though, many landowners lease hunting rights not to make money, but to control who uses their land. Also, with such an agreement, lessees have a vested interest in maintaining and patrolling the property, which benefits the landowner, too. Corporate landowners, on the other hand, were more likely to look at the economic aspects of leasing.

The report concludes that landowners each have their own concerns and motivations about allowing public hunting. For hunters, the report has three broad areas hunters should address: Helping landowners regulate access, showing respect and appreciation for the land and landowner, and helping to conserve hunting habitat.

When it comes to public hunting in Pennsylvania, we're fortunate. Along with the more than 4 million acres of public land open to hunting, hunters enjoy access to 4½ million acres of private land, thanks to the generosity of the 30,000 landowners enrolled in our Farm-Game, Safety Zone and Forest Game programs. Nonetheless, the same factors plaguing other states apply here, as do recommendations of what hunters can do to obtain access to private lands.

One of the best things you can do as a hunter is contact landowners well in advance of the hunting season; July or August is not too early. Putting forth the effort well before the season shows you're sincere and most likely a responsible individual who will respect the privilege. Offer to look out for the property and help the landowner maintain the property in any possible way, and demonstrate your appreciation in other thoughtful ways. In a larger sense, hunters need to become involved in land-use decisions and other issues that can save farmlands and other rural areas from being developed.

When it comes right down to it, hunting on private land is simply common sense. Respect the landowner, show appreciation for the privilege, and treat the land as if it was your own. — *Bob Mitchell*

letters

Editor:

It's always bothered me that archery hunters get to hunt in the best weather, have the first chance at large deer, and receive three times as many hunting days as rifle hunters.

K. MEYER,
FT. PIERCE, FL

Editor:

I recently read that you intend to study why the turkey population on the Michaux State Forest has declined so drastically.

To anyone familiar with the area, the answer is obvious. This forest is under constant pressure from ATVs, snowmobiles, mountain bikes and chainsaws.

Efforts to curtail and regulate some of these activities, most visibly ATVs, have been less than effective. Without an effective policy to deal with this encroachment on turkey habitat, it is unlikely the population will ever increase.

W. SANKEY,
BIGLERVILLE

Editor:

I have been a continuous subscriber since the 1930s, and I still enjoy *Game News*, even though the fine print on glossy paper is hard to read.

M. S. BRIGHTHAUP,
CATAWISSA

Editor:

Thanks for letting us junior hunters hunt antlerless deer on the two Saturdays of buck season. My dad is real busy during the

week, so we don't go hunting much. Hunting antlerless deer in buck season is good for me and my dad because we can spend more time together. Another thing is that I usually see does in buck season. If I get my doe this year, I'll think of you.

J. HAZLETT,
FRANKLIN

Editor:

I have enjoyed *Game News* for many years. It appears to me, though, that you're drifting away from "game" and trying to include too many other subjects and writing styles not appropriate for a hunting magazine.

F. WISNIEWSKI,
WATERFORD

Editor:

On the opening day of spring gobbler season I killed a 20-pound gobbler with two beards, one six inches and the other about three. What makes this bird even more special is that it gives me my first Pennsylvania triple trophy. I got a fat 5-pointer in archery season and a nice bear on the first day of bear season. All three of my trophies came from public land.

Thanks for making this all possible.

D. KESSLER,
ASHLAND

Editor:

This is written to the stupid turkey hunter who my

grandson and I observed on May 8, in Huntingdon County. Buddy, it was your lucky day. As you sneaked through the woods, wearing no orange at all, you walked down a ravine with only your head showing.

I'm glad my grandson was with me because this was a good lesson to show that regardless of regulations, there are those who refuse to obey the laws. I hope you get a chance to read this before becoming a statistic.

J. SHIMMEL,
NEW CUMBERLAND

Editor:

Shortly after brushing our yellow Lab, Hector, I watched as a nuthatch repeatedly picked up some of the shed winter hair, then flew to a cherry tree and stuffed the hair into a small hole. With training and in sufficient numbers, nuthatches could come in real handy around the house.

E. PAGE,
THORNHURST

Editor:

I read my husband's *Game News* cover to cover — eventually — and I just read Bob Sopchick's "Chiar-oscuro," in the March issue. It was great. I commend you for helping me see more and more of just part of what calls a person to the dark woods during turkey season.

A. BISH,
MEADVILLE

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**

Groundhog Medicine

By George Block III

THE SUN felt good on my back as I knelt near the great oak tree, and watched the alfalfa field in front of me. The accurate 6mm was beside me, bolt open, the bipod keeping it in an upright position. I've been hunting groundhogs a long time, I thought, and I love it as much now as ever.

That's not to say the sport hasn't changed for me, though. My father was a coal miner, and now and then he was out on strike. I never went shoeless or hungry, growing up, but times were a little leaner back then. Many days I would hike the local railroad tracks, .22 rifle in hand, looking for a groundhog to supplement our meat supply. As a skinny 12-year-old kid, those days — and the ones on a baseball diamond — were my favorites. I would sneak quietly along the tracks, watching the piles of ties or the edge of the paralleling creek, looking for a sunning woodchuck. With that old Mossberg I downed more than a couple of them while they snoozed, unaware of my presence.

Today I hunt a little differently, but I still have the same respect for the



A COUPLE of woodchucks taken in southwestern Pennsylvania by author's son, Pat. Note the shooting stick, handy for when a steady rest is needed for shooting long distances.

hole-digging marmot. More than 45 years of hunting woodchucks with long range rifles, trying to find the perfect long range outfit, has taught me something about accuracy, rifles, cartridges and optics. While I haven't tried every varmint caliber, I've used as many as just about anyone and far more than most.

Looking back on a lifetime of woodchuck rifles, I think my first attempts at shooting chucks with a rifle that would reach out farther than the .22 rimfire was a Savage Model 340 in .222, topped with a K4 Weaver scope. Also, a True Line Jun-

ior reloader was bolted to a workbench, so I wouldn't be tied to factory ammo. It was amazing; I could take chucks out to 100 yards.

Actually, it wasn't until a few years later that I wrung out the full capability of that rifle and cartridge. I used to think it was the rifle that limited my range, but when I look back on it now, it probably was the scope. If I had mounted a higher power scope with a full 1-inch tube on the .222, I probably would have been able to take chucks at least 200 yards away. The action on the little Savage, with its single locking lug and its split bridge design, required a side scope mount. After a couple years I realized I needed a better woodchuck outfit.

I was browsing through a local sporting goods store when I stumbled upon a rifle that I couldn't live without. I had never heard of the make, but even as a youngster I recognized it as a top quality firearm. I was working in a steel mill at the time, though, and the name sounded Japanese, and this steelworker wasn't about to spend his hard earned bucks on a Japanese rifle. The salesman, Paul Wolf, however, explained that the firearm was made in Finland. It was the first Sako I had ever seen, a L46 .222. The little action was a jewel, and the fit and finish were perfect.

When I walked out of the store I was carrying the Sako, topped with a K8 Weaver. Later, that would be my only regret. The entire time I owned that tack driving varmint rig I wished I had bought the 10-power Weaver. Even then I knew that the better one sees, the better he shoots. How many groundhogs did I send to varmint heaven with the Sako? I don't know, but it was many. In those days I was hunting an awful lot, and the outfit was super accurate out to 250 yards.

When the 1960s rolled around I began to hunt with an imported southerner named Gene Harmon. Gene, like me, was a varmint hunting addict who used a Model 70 Winchester in .243. Guess what hap-

pened? I made one of the decisions I regret to this day. I parted with the L46 and upgraded to a heavy barreled Sako in .243. It's not that the .243 was lacking, but I shouldn't have traded the .222.

That ended my .222 phase, although I still own a Remington 722 in that chambering. If I were to rate the .222 it would be high on the list, despite its relatively limited range. The .222 is perfect for shots within 250 yards. It is accurate, reasonably quiet and has little recoil. Another reason this cartridge holds a special place in my heart is that it was the first I reloaded. In fact, I still own the first three cartridges I ever put together.

Right after purchasing the .243 I topped it with a 15-power Unertl Ultra Varmint scope. Now I could compete with Gene. It was with this outfit that I made one of my longest shots.

We were sitting on a hill in Greene County, watching a field that stretched out to 400 yards. Left of the field and farther back was the foundation of an old farmhouse, and just a few feet from the foundation was a woodchuck. The distance to the chuck was at least 700 yards, but because no others were in sight, I thought I'd give it a try. Holding what seemed five or six feet over the standing chuck's head, I shot. It seemed to take forever for the 85-grain Sierra bullet to get there, but when it did, the groundhog crumpled to the ground, tail waving in the air.

During this .243 period Gene and I did a lot of shooting, sometimes at chucks but more often at paper. We soon learned that IMR4350 was the best powder, and at that time we leaned to the 85-grain flat base Sierra. Even to this day, with a larger variety of bullets and powder, that old load is hard to beat. My experiences during those years were invaluable, and I have always owned one .243 or another ever

since. The .243 is great for the hunter who hunts both woodchucks and deer.

It didn't take me long to put 4,000 rounds through that first .243. When I noticed groups opening up a bit I decided to replace the barrel. At that time every writer in the country was praising the then wildcat .22-250. I took the rifle to a gunsmith to have it converted, but that left me without a varmint rifle. The solution was easy, however. I mounted the 15-power Unertl on my Model 70 .270.

The .270 with 110 Sierras did a splendid job, shooting as flat as the .243. To this day I don't consider the .270 a varmint caliber but have no doubts it will do the job — although with some recoil and noise. Almost as many groundhogs have been taken with my .270 as with the .222, and I've learned a lot about the cartridge in the chuck pastures. The heavier 130-grain bullets, while shooting flat, don't open reliably on chucks. To eliminate the chance of a woodchuck crawling away after a hit, it's imperative to use the lighter bullets when using this caliber.

That spring I acquired a new .22-250 and found it a flatter shooting outfit than the .243. In fact, that first summer I had trouble because I was shooting over many woodchucks. I found myself holding over the same amount I did with the bigger bore but, to my dismay, the bullet would kick up a cloud of dust well beyond the chuck. Once I learned its trajectory, however, the .22-250 served me well and is another chambering I still own. This round taught me the importance of light recoil in a varmint round. With it I had some of my best days in the varmint pastures.

Once, while hunting in Greene County, I took 25 chucks with 27 shots. Those were the days when you took the shot that was offered when it was your turn. It didn't matter how

distant the chuck, if it was your shot, you gave it a try. My partner on that trip was Don Spang who was hunting with a .264 Magnum. It wasn't long before he acquired a 40X Remington in .22-250. With a medium burning powder like 4064, the .22-250 is one of the top woodchuck cartridges.

A few years later I bought a Remington 722 in .244. It became my favorite knock around firearm. All it had on top was a 10x Weaver, but the gun sure would shoot. On a good day at the range, with 85-grain Sierra spitzers, I had little trouble keeping groups around a half-inch. This dandy little rifle was carried afield more and more, while the heavier models were left at home. I still took my share of woodchucks. Maybe I was just getting better with age.

Despite all the high priced varmint rigs I have owned, it was with this rifle that I made my longest and best shot. Again, I was in Greene County and had a friend, Jim, and my son, Pat, along. Jim had never shot chucks before, and as it got near quitting time I was embarrassed because he was one chuck up on me. It was my turn to shoot and there was one woodchuck in sight. In fact, the chuck had been in sight for the last hour. He was so far away that even the few shots we had fired hadn't scared him into his hole. As I rested the rifle over the tripod, I looked at Jim and asked, "How far do you think it is?"

"If you said it was a 1,000-yard shot, I wouldn't call you a liar," he answered.

I peered through the scope and held what appeared to be about 15 feet over, then added another five. The groundhog really looked like an elongated dot at that distance, but the crosshairs were steady and I slowly squeezed the trigger. The rifle recoiled and I settled back on the feeding groundhog and watched. After what seemed like a minute, the unconcerned chuck rolled over and waved its black tail in the air. I couldn't believe what I had just seen. Recovering from disbelief, and acting like it was an every day occurrence, I said, "Well, I hit it."

Jim didn't believe that the dark mark in the field was a deceased clover eater, so we walked all the way across a pasture and two alfalfa fields to check it out. To this day I can picture every aspect of that shot, but I don't know for sure just how far it was. I never indicated to Jim that the shot was anything other than one made with extreme skill, and one that I could make on most days, but the truth is different. The way I figure it, that hog was jinxed from the start.

That .244 wasn't much to look at, but it was a good varmint rifle. My favorite varmint bullet then was the fine 85-grain spitzer made by Sierra. It actually has a better ballistic coefficient than the same company's hollow point bullet of the same weight. I still use this bullet, along with the newer 70-grain Ballistic Tip from Nosler.

After a few years with the old Remington I ran across a custom .25-06 built on a Remington 700 action. It had a wild looking stock made of laminated yellow maple and walnut. I don't like yellow stocks (or yellow cars) but the Hart barrel made the outfit a keeper. With a full dose of H4831 and the 87-grain Hornady bullet, the rifle was a tack driver. Mounted on the top of the 700 action was a 6.5-20x Leupold scope. I could hit chucks pretty far away.



Once I was hunting with Walt Novak and Bill Bushmier, and again was behind in chucks bagged. And again there was one feeding so far away that no one wanted to take the shot. Naturally, I was game, so I shot and the chuck went down. As we walked up to retrieve it, Walt was in front and Bill and I were lagging behind, swapping lies. Walt picked up the groundhog and said, "You hit him in the eye."

"Which eye," I asked?

"Left one," he said.

"I was aiming for the right."

That chuck was probably in the 700-yard range.

Not liking yellow stocks, the .25-06 went to a friend who converted it to a .25-06 Improved. Personally, I didn't see much improvement. This was a period when I couldn't bring myself to shoot the same rifle for very long. There was a Ruger 77 in 6mm. It was good. Then there was the Ruger Number 1 in the .220 Swift chambering. That was a dandy. With the 55-grain bullet it zipped along at 3,800 fps and shot half-inch groups. After acquiring my first Oehler chronograph I found few .22-250s that could reach much beyond 3,600 fps with the same weight bullet.

If the Swift isn't the top woodchuck cartridge, it has to be in the top three. Since that first Number 1, I have owned quite a few Swifts and have never owned one that wouldn't shoot rings around any .22-250. Not only are they faster, they're also more accurate. Presently, one of my two favorite

AN ACCURATE flat shooting rifle with a top quality scope, coupled with hours spent on the range and in the field, make connecting on shots at woodchucks several football field lengths away more than just luck.

groundhog rifles is a Swift. Actually, I should say a pair of Swifts. The 40X Remington in my cabinet topped with a 16x Leupold is the most accurate rifle I have ever owned. With the 55-grain bullet ahead of a good dose of 4064 it groups in the quarter-inch range. I have one fault with it, though; it does get heavy if there is much walking involved.

The second Swift is used more often as I get older. It's a pre-64 Model 70 topped with a 12x Leupold. It's not quite as accurate as the 40X, grouping slightly under half an inch, but it is lighter. I have probably had fewer misses with this rifle than any other I've ever owned. With a good dose of 4064, the Swift moves a 40-grain Nosler Ballistic Tip about 4,150 fps, and out to 300 yards, bullet drop is negligible. Last summer I used this outfit until about the middle of July then, feeling sorry for the chucks, I switched to another rifle.

That one is a custom built 6mm based on a Winchester pre-64 action with a Rocky Mountain cut barrel and Clifton Arms stock. The scope is a varmint 3.5-10x Leupold with a dot. This rifle shoots well with the 70-grain Noslers, and it's one of the best fitting rifles I've ever owned. To be honest, my hit percentage doesn't drop much when I switch to this outfit. In fact, this is the rifle I chose to take to Wyoming last fall to hunt prairie dogs. It also served as an extra antelope rifle. Incidentally, this 6mm came my way when a friend couldn't get it to shoot, and sold it to me for a good price. I didn't do a thing to it and it shot half-inch groups for me from day one.

This year I'm thinking of using a custom built wildcat that belonged to a friend who is now hunting chucks in a better place. It's a Remington equipped with a Douglas barrel chambered for one of the best of the wild-

cats, the .250 Ackley Improved. This little bugga thinks it's a .25-06. The 85-grain Ballistic Tip, pushed by only 39 grains of powder, exits the barrel at over 3,400 fps and is extremely accurate. I should shoot a few chucks with it in memory of Tom, the previous owner. He was one of the best woodchuck hunters and shooters I've ever known.

How many other varmint rifles have I owned? I hate to admit it, but I have probably forgotten some of them. There were some .22 Hornets in my younger years, and I have no desire to own another. I have never owned an accurate Hornet. There were more .243s than you can shake a stick at, and a fair number of .244s or 6mms. I once owned a .250-3000, and shot a few groundhogs with it, and it wasn't bad. Perhaps this is one of the most underrated calibers chambered. There were a few .222s, and the .222 is a classic. Also in my gun cabinet is a Winchester Highwall in the .219 Donaldson Wasp.

The Wasp was great in its day, but making brass for it is tough. The rifle is a good shooter, though, and some day I'll take it hunting. I have taken chucks with the .257 Roberts and the .223, and I've even shot hillside to hillside with the .300 Winchester Magnum. The 7mm Remington Magnum has been a companion, and I have owned more than a few rifles in the .25-06 chambering.

One year I shot a .240 Weatherby exclusively, and it was a flat shooting rifle, although brass was expensive and didn't hold up well. I'm 60 years old now and am still seeking the perfect woodchuck rifle.

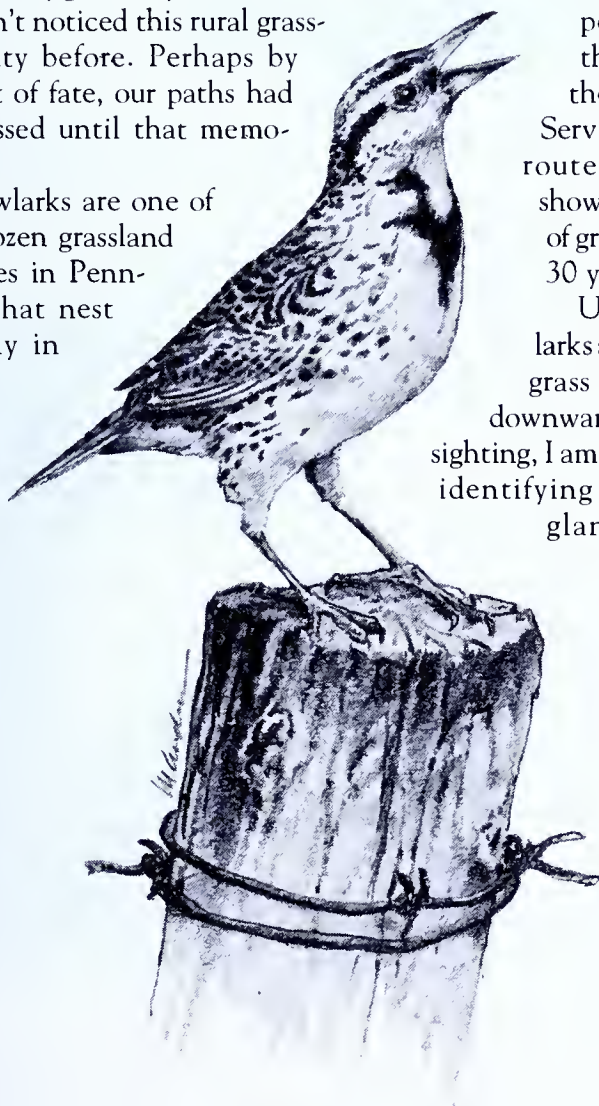
What have all those rifles and years taught this shooter? Not much, really, for one becomes certain he owns the best outfit then finds another that just might be better. If I were confined to one cartridge I'm not sure what it would be, but here's my top five: The .220 Swift, the .22-250, 6mm, .25-06 and .243. Any of these would serve me well, but who knows what I'll be shooting a few years from now. □

Meadowlark — Grassland Beauty

By Connie Mertz

IT WAS only a few summers ago that I saw my first meadowlark. I was driving past some farm fields planted in alfalfa when I glimpsed a yellow-breasted bird with a defined black “V” bib. I thought I had spotted a rare species, and was admittedly disappointed when I realized the meadowlark was a common farmland bird. Being a country gal all my life, I was baffled that I hadn’t noticed this rural grassland beauty before. Perhaps by some twist of fate, our paths had never crossed until that memorable day.

Meadowlarks are one of about a dozen grassland bird species in Pennsylvania that nest exclusively in meadows,



hay fields and grassy areas. While grass nesters as a whole benefited from the clearing of America’s forests at the turn of the century, they are presently showing dramatic declines. Compared with those that live in other habitat groups, grassland birds are showing the greatest population decreases. Statistically,

they have dropped five percent each year since the 1960s. According to the U. S. Fish and Wildlife Service Breeding Bird Survey routes, Pennsylvania has shown an 80 percent decrease of grassland species in the last 30 years.

Unfortunately, meadowlarks are one of Pennsylvania’s grass nesters experiencing a downward trend. Since my first sighting, I am now more aware of their identifying characteristics. At a glance I can spot the robin-sized streaked brown bird with a yellow breast and black “V,” usually perched on a fence post or snag. If one flushes, I quickly look for a white patch found on both sides of its tail. Sometimes in late summer a keen observer can

notice black spots rather than the tell-tale black "V" on the yellow breast; these are juveniles that have recently fledged.

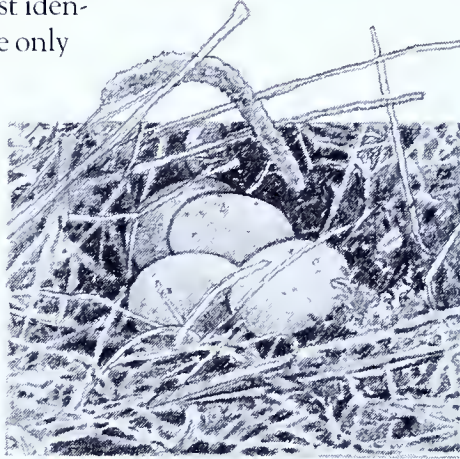
The nesting cycle begins when the males return to the breeding grounds from the southern states. Two to four weeks later, females arrive. The sexes are indistinguishable. Unlike most bird species, male and female meadowlarks are almost identical in coloration. The only way to tell the difference is by their behavioral patterns. About 60 to 80 percent of the males are polygamous, usually choosing two females.

One of the most interesting visual displays is the "jump-flight" in which both sexes fly 10 feet in the air with their wings rapidly fluttering, feet hanging down and tail raised. They fly several yards before landing. This rare behavior is done not only to define territories, but also during the courtship ritual.

While visual displays are impressive, it's their singing that alerts one's attention to their presence. The most common song heard throughout the year is a series of two to eight shrill whistles made by males during courtship and to defend territories. Oftentimes, males will perch on prominent structures and call back and forth to one another.

Territories are usually seven or eight acres, but they can extend to 15. Females build their nests in the territories of their mates, sometimes within 50 feet of any other female that may have mated with the same male. The female constructs the nest. Built on the ground in grassy fields, she carries

away unwanted debris until she has made a small depression. The nest is first lined with coarse dried grass, then a layer of fine grass — or horsehair, if available — is added. Once the nest is completed, she then weaves a dome-shaped roof of grasses and attaches it to the vegetation. The nest is not accessible from the top, but from the side. Hidden tunnels often lead from the vegetation to the nest.



Five somewhat glossy white eggs are laid. Dotted with brown or lavender, they are incubated by the female day and night. In two weeks the young hatch, and both parents feed them. Even though the young fledged at 12 days and can fly short distances, the parents

continue to feed them for another month. If the female starts another brood, the male will continue caring for the young birds. Once the juveniles can provide for their own needs, the male may chase them out of his territory.

By the end of September, meadowlarks gather in large flocks for their fall migration. They can be seen feasting in harvested cornfields or in weedy plots. At night, they may roost in tall grasses in nearby wetlands. Once migration gets underway, they will fly at night and feed during the day. Some meadowlarks will remain in their northern environments and roost near salt marshes.

I highly doubt if I will witness large flocks roosting in our cattails, or happen upon a secluded nest in one of our hayfields in the near future, but I am hopeful. Through the Conservation Reserve Program (CRP), grasslands are being restored. Warm season grasses are also providing habitat that benefits all grassland species, including my prized meadowlark. □

Picking a canine hunting companion should not be left to chance.

In Search of My First Field Dog

By Jim Romanelli

THERE ARE approximately 20 million hunters in the United States today, and over one million in just the Keystone State. Some go out for just a couple of days each season. Many, because of work and domestic responsibilities, go only on weekends. And then there are those who test their wives' patience by stealing every one of those limited autumn weekends and

saved up vacation time just to smell those autumn leaves, feel that cooler air, wear those worn out canvas brush pants (that she's been begging you to wash more than once a year) and enjoy those days with a firearm in hand throughout the fall.

I consider myself in that last category. Throughout my three decades of hunting, only about 10 percent of the time have I had the pleasure of hunting over a fine field dog. Even though hunting without one will always be a thrill for me, hunting with one elevates that thrill to a higher level.

During the past 10 years, my wife and I resided in a condo, I was working 60- to 70-hour weeks, with an 80-mile roundtrip commute, and we had two toddlers who needed every spare minute I could muster. Having a dog around at that time didn't seem to be a sane addition.

But within the past year, my company transferred me closer to home, so my daily commute is now just 12 miles, my working hours went to around 50 hours, we are in a new house on a half-acre lot with a 100-acre farm behind us, and our kids are now nine and six years old. This scenario must



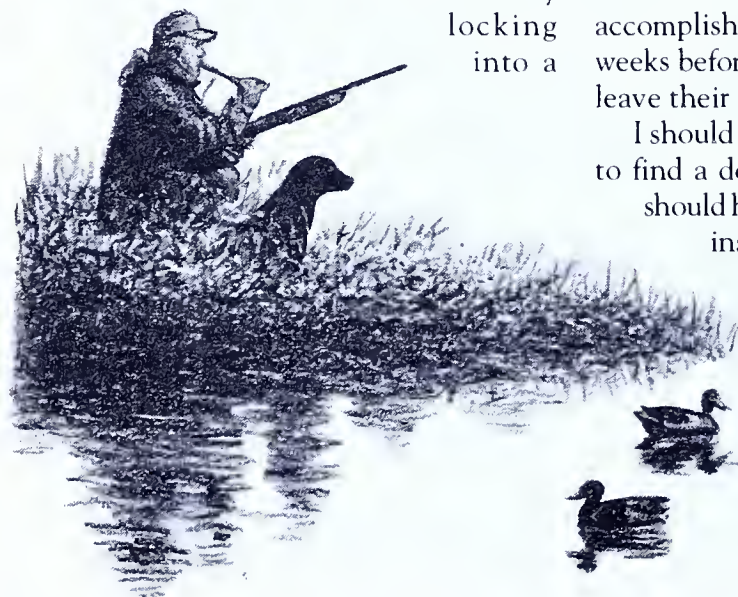
have sparked an unknown hormone in my wife, as she began to talk in earnest about having a dog around the house.

I finally gave in, with the stipulation that I got to pick the breed. My wife, who had a moment of common sense when she married me, had another when she realized what I was up to. She has known for years that I always wanted a field dog, so the next thing she said was, "We may as well have someone in the family who knows where you'll be during the hunting season, so I guess you'll be getting that hunting dog you've always wanted." Truer words had never been spoken.

With friends over the years, I've hunted over Brittanies, English setters, springers, Gordons, German shorthair pointers, goldens and Labradors. Each brought an impressive style to the hunt and game to the bag, and had its own wonderful individual qualities and personalities that suited the needs of a particular hunter.

Watching those dogs work, I have always thought there is nothing prettier than a pointer or setter traveling along at a steady gait and then, when

scent grabs its nose,
instantly
locking
into a



point as if lassoed. I also feel nothing is more exciting than watching a flushing dog scouring ground and diving into fortresses of cover to bust out a ringneck or grouse, chuckar or quail.

My preference lies with the flushing dogs, and the reasons are many. First, the action is a bit faster. Second, I enjoy watching those few seconds of hyper activity the dog goes through when it's hot on the scent. Third, there's no cover that they won't bust through to get at a bird, and, fourth, running birds are not acceptable to them.

With that in mind, I also wanted a dog proven to be good with children, because it would be a family dog most of the time. With that in mind, I narrowed my choices to goldens, springers and Labradors. I ended up choosing the Lab, because of their versatility in the water as well as the field, and for their extremely gentle temperament.

Not really knowing how to go about finding a good Lab, I figured that the local newspaper would be the perfect place. My wife found an ad about a litter and off we went. I asked the breeder if the parents were field dogs and the reply was that somewhere on the sire's side, one of the ancestors had been used for birds.

Well, a Lab was a Lab, I figured, and because my kids seemed to have already picked one out, all that was left was to buy it. I handed over a deposit, and with that accomplished, it was just a matter of a few weeks before the pups were old enough to leave their mother and find a new home.

I should interject here that in my haste to find a dog, I disregarded things that I

should have given more thought to. For instance, when we were looking at the puppies I noticed that the environment was unkept and fecal matter was spread all over. There obviously was no attempt to

keep the area clean, which meant the threat of infection to the puppies was almost a given.

Even though I didn't know much about what to ask for in the way of health certificates or how to read a pedigree, I did ask the breeder about OFA certification of the hips and certification of the eyes. The question about retinal certification took the breeders by surprise. They said that they had never heard of it, but that they would have it done.

They never asked us how long it had been since we had a dog, if we both worked all day, what kind of environment the dog would be living in.

As I think back, I should have listened to my instincts and thanked them for their time and continued to look.

Three weeks later, when we went to pick up the puppy, the breeder said that their vet had passed the puppy, and they had me sign a waiver that stated I had three days to bring him to my vet (which seems to be standard) and if there were any problems I could bring him back. So I called my vet and she told me to bring him right in.

Much to my surprise, my vet found a galloping rhythm of the heart, irregular short shallow breathing and downright lethargic behavior — the puppy actually fell asleep on the examining table — as well as a general all-around shyness. She explained that any one of the first three symptoms alone could be associated to the stress of a new environment or to the shot it had the day before, but because they were all evident at the same time, she couldn't give the dog a clean bill of health. As for the shyness, she told us that we would have to work on socializing it to people and other dogs in order to prevent any cornering aggressive behavior later on.



She asked us to bring him back in seven days, just to be sure. When I told her that I had only three days, she suggested that I do what I was comfortable with.

I called the breeder and told them of the findings and that I was bringing the puppy back (which was an ordeal in itself because my kids had already grown attached to it). The breeder

wasn't too happy, as their vet had given it the okay, and then mentioned that I owed them for the x-rays of the mother.

That comment stopped me in my tracks.

"What x-rays? And why of the mother?" I asked.

Because you asked her hips to be certified."

"The OFA certification was supposed to have been done of both parents prior to breeding, and that cost is absorbed by breeders and passed on to all the puppy buyers, not just one, I replied."

Well, a disagreement occurred and I was told that unless I would settle for my money back minus the cost of the x-rays, they would withhold the whole amount and that I should get an attorney. I quickly figured that lawyer fees, time off from work and the loss of overtime pay was going to be far costlier than x-rays, so I agreed and left somewhat bitter and angry.

With my dream dog turning into a nightmare, I went back to my vet and related the story. She listened and then very diplomatically told me that I hadn't really done my homework for the quality of dog I wanted. Unfortunately, I had gone to a new backyard breeder who should have questioned such a request for x-rays (if that's how they understood it), and if they didn't

question it, their vet should have.

So my vet proceeded to give me the names of six reputable breeders, and the name of a president of a retrievers association. After talking with all these people I was amazed at the education I received. It ran from: what I should expect from a breeder, what I should be asking, what they wanted to know about me and my family and what was I going to use the dog for.

Although some of the breeders didn't have a litter at the moment, I was invited to come and watch their dogs perform, and to learn something even if I didn't buy from them.

I also realized that all these breeders knew each other, as well as having competed against one another in hunt tests. The common theme among all of them was that I couldn't go wrong in buying a dog from any one of them. Their goal was to breed their Labs to be the finest example of what a Lab should be.

One of the breeders who had a litter was Trish and David Hills of Winwood Labradors, so my wife, kids and I jumped in the car to see what a real Lab was supposed to be. We arrived to find a spotless home on a spotless 30 acres, with four labs in kennels and four others running to us wanting to play, along with a litter of seven 3-week-old puppies.

When we initially met Trish and Dave they could not have been more hospitable, and by the end our 2-hour visit, I had learned all about the characteristics that make a true Labrador retriever, how to read a pedigree, what books would aid us in our training for the field as well as a family dog, and advise on what to expect as the dogs age. The clincher came, though, when they had their dogs perform the basic obedience and retrieval commands.

I was sold right then and there. If I were a little gun shy from my previous

experience, Trish and Dave certainly made me feel more at ease because their first goal was to educate us, not to sell us. It was obvious that they truly cared for their dogs by the way they asked questions about us. They did it by way of conversation, not interrogation.

The last thing we talked about was price, and although they were higher than the first breeder I experienced, their dogs were well worth it. When my wife saw me hand over the deposit she almost had a stroke, knowing how frugal (she calls it cheap) I usually am. The old adage, "You get what you pay for" was certainly true in this case. Over a possible 15-year relationship with a new member of the family, price becomes insignificant.

What I also liked about the Hills was that they encouraged us to keep in touch with them, whether it be for any questions we might have, about field trial information, or just to let them know how Grady (that's his name) was doing.

We walked away completely satisfied with the breeders, feeling we had made new friends, not to mention obtaining a new addition to the family.

When we first went to see the Hills the pups were three weeks old. We weren't allowed to handle them then, so we were invited back when they were five weeks old to inspect them up close. Three weeks later we went to pick up the dog that was selected for us. Trish and Dave gave us a volume of literature on the how to and do's and don'ts of many aspects of dog ownership, such as crating, socializing, and raising a good family dog, along with the blue card for registering the pup with the AKC.

Grady is coming along just fine. He puts a new meaning into life around here in more ways than one. It was like having a baby again, but only with fur, four legs, a bundle of energy and a lot of mischief always at the ready.

I have to admit that because the breeders had kept their area so clean, house breaking was easy, and I find that basic

commands aren't as hard to teach because the breeders had worked their dogs in the presence of the pups.

It's fun to watch the look on the neighbor's face when I throw a dummy and Grady retrieves it. Grady's behavior isn't perfect by any means, but he listens about 60 percent of the time, and as time goes on I find that his obedience increases.

I don't want to give anyone a romantic picture about raising and training a bird dog; it's a lot like raising kids. It takes time, a lot of effort, and the right combination of discipline, patience and love in order to build a trusting relationship.

So, for those of you thinking about adopting your first hunting companion, learn from my experience and follow these few steps:

Go to a couple of local veterinarians, find out what questions to ask and get a list of breeders. Go to the library or buy

several books on your chosen breed and study them. Get an idea of what to expect before you buy. Make the phone calls and don't be afraid to ask questions. Remember, a good breeder should be doing the same to you. See how their dogs work and listen to what the breeder has to say. Remember, they've been doing it longer than you have.

Also remember that it's not important whether or not the breeder you prefer has a litter at that time. What is important is that you get educated. They will always have a litter available at another time and time, is on your side.

I have learned that the best lessons in life are never free, and even though I lost the cost of a set of x-rays through my ignorance, I still consider it part of the learning process. □

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Traces

I REMEMBER the day I found my father's old bow hanging in the attic, covered with cobwebs and dust, with his back quiver hanging from a nail. The arrows inside had broadheads so sharp that I laid my finger open when I ran it over one of them. I thought then how special it would be to take a deer with that bow. It was an idle notion at the time, but over the years it became more and more like a pledge that I was always aware of, yet one that ultimately would take me 15 years to make good on.

The bow was an old Bear Kodiak — a recurve — that pulled 55 pounds. Over the years it went everywhere with me, always ending up resting unstrung on the wall of my office (wherever it happened to be).

Long ago I had come up with a certain set of guidelines whereby I would try to take a deer with that bow, conditions I hoped would make the eventual killing — if it ever happened — all the more symbolic and special. I've never been overly concerned with a deer's headgear or lack of, but I decided that if I were to ever take a deer with my father's old bow, it would have to have antlers, I would have to be hunting on the ground and the shot would have to be close. Finally, I would hunt with the bow on only one day each year, October 28, my father's birthday.

This condition alone lent itself to a certain sense of ceremony, formality and a wonder of possibility that always seemed to surround that day.

Beginning in August I'd take the bow out on long, meandering walks, occasionally shooting at stumps and leaves when they tumbled across the trail in front of me. I'd shoot every afternoon before the season, and as much as I thought the bow's ancient limbs could stand.

Some time ago I stopped hunting the first few weeks of the bow season, because there's always too many hunters and it's too warm then to do the kind of hunting I like to do. I enjoy hunting during the rut, and I use those couple of weeks preceding it to scout for deer. So, eventually, that day in October became like the opener for me.

Last year there were a few good bucks frequenting the fields on Hudley Derbeck's farm. I saw them in August and on into September. Every evening it seemed they would come out into the alfalfa fields in a big bachelor group, their bulbous antlers knobby and fuzzy. Their little group broke up about the time the first frost came and the velvet was all gone from their antlers. Then I stopped seeing them completely, even though Hud had told me they were still wreaking havoc with his corn.

Hunting in Pennsylvania over the years, I've had some success stalking deer in standing corn (with permission from the landowner, of course). I consider it a far

By Bob Butz



more difficult and, therefore, admirable way of taking a deer, as opposed to waiting in ambush in a treestand. Though I didn't always hunt in this fashion, it seemed to fit in with the discipline of hunting with the old bow for "my" season opener.

Stalking deer in standing corn is good only after the first frost, after the stalks die, wilt and turn an amber color. It's even better if it's raining or there's a little wind, because the swaying stalks help mask any careless movement, and the sound of them brushing together makes it possible to pass through the rows silently.

We had snow last year in Michigan, where I live now, a freak snowstorm that came over the big lake one night. It piled up to the bottom of the big window of my cabin and was still coming down when I pulled off the main road and onto a farm road that led back to the Derbeck farm.

When I pulled up, around 5 a.m., Hud was out in the barn, trying to attach a plow to his Jeep. He was having a hard time of it, so I stuck around a little longer than I had wanted to help him out. When we finally got the thing on and working it was

already light, and I set off down the fencerow feeling as if I had missed the best part of the day.

Originally, I had planned on waiting out the morning at the edge of the fields under a hemlock tree, then work my way through the corn until around noon. Because of the heavy snow, I had hoped that maybe the does would stick around feeding a little longer than usual, and with the rut almost underway, perhaps one of the bucks I'd been seeing would stick around, too.

Because it was already light, however, I went right to the corn. Derbeck had cut some of the fields, while parts of others were left standing. I started through one small patch that bordered a cherry orchard on the north end of the farm. Seeing nothing there but tracks, I went down the hill, made sure of the wind, and stepped inside another large patch of corn, this one a narrow strip that ran for what seemed like miles along a brushy, uncut field.

Nothing short of a good rain could have made walking as quiet as it was



that morning. The snow underfoot was a fine powder and was still coming down. I saw tracks in all the places I thought I would, and twice I heard what I thought were deer feeding. Both times it turned out to be black-capped chickadees, though, so lost to the world in eating that I was able to get close enough to one that I nearly touched it before it flew away. When I saw deer, however, they were not so careless, and when they went out of the field — two doe — I could only be glad that at least they had done it quietly. They had been bedded down in the corn, and I never even knew they were there.

The rest of the field was a series of low, rolling hills. Due to the snow, I was able to clearly see everything out in front of me. All I saw, however, were

long empty rows of corn. I picked a spot in the woods where I had the best view of the fields. I figured I'd eat my lunch and maybe a buck would show somewhere in the corn where I could then try a stalk.

While sitting there I thought about the strangest things, most of which I can't remember now. I thought about my father, of course, and how I never really knew him. I thought about that a lot. And I wondered as I always did when things were going like they were on this day, that if he was really looking down on me, as I had always been told, why in the heck couldn't he talk the Big Guy into letting me get a crack at a big buck with his old bow.

I pretty much figured out that killing a deer with Dad's bow would probably never give me what I was really looking for. But, of course, every season I kept trying, hoping that maybe I'd get lucky one of these years and finally find out for myself.

My father had cancer, a type that caused him to linger on for a long time. It took so long that most of the details of what he was like before he got sick run together with how he ended up. I was only 10 when he got sick, so you'll understand why I can't remember too much. Yet I know my father was a bowhunter. Except for all that happened to him near the end, the fact that he loved archery has pervaded every memory I have of the man. And today, despite not being able to recall even the simplest lines of his face, I truly feel as if I've come to know him because I've learned how to hunt with a bow.

I did kill a buck that afternoon, a deer with antlers you could never enter in a record book. I guess many hunters wouldn't even want the antlers hanging on the wall, but that's exactly where the tiny 5-point rack ended up.

And today my father's old bow rests there, too, as does the arrow that took the deer. If you look at the arrow real close, as I often do, you'll see traces of blood on the shaft and on the broadhead, its edges still as sharp as the day it flew. □

Are Pennsylvania's black bears becoming more dangerous?

Bear Attacks

By Jack Weaver

Northeast Region I&E Supervisor

IT WAS one of those spectacular July days. Deborah Millington's 3-year-old son, Travis, had been begging to go on a hike. After lunch Deborah placed 13-month-old Logan in a backpack, and accompanied by Travis and the family dog, Maggie, started out through a section of the Delaware Water Gap National Park in Monroe County.

A half-mile from her home an old logging road enters the woods. The Millingtons followed this road into the park for another half mile, with Maggie bounding ahead, delighting in the profusion of sounds and smells dogs find so intriguing. Soon they heard Maggie barking. Looking up, Deborah saw two bears in the brush about 100 feet away. Although she could see only the backs of the animals, she enthusiastically pointed them out to Travis. Having encountered bears before, Deborah wasn't alarmed.

Suddenly Maggie charged into the brush, chasing the smaller bear deeper into the woods. When the larger bear stepped onto the trail, it spotted Deborah and the children and then charged. In an attempt to scare it away, Deborah yelled and ran at the bear.

"The bear never took its eyes off my face from the moment it came running at me," Deborah said.

The bear knocked her to the ground, spilling Logan out of the backpack, and raked her face with its claws. Deborah

jumped to her feet, striking and screaming while trying to stay between the bear and her children. The bear continued circling her and the children, making short charges until the screams of the Millingtons finally drove the animal off.

Picking up her screaming but uninjured children, Deborah started toward the highway. The skin of her left cheek was peeled down over the side of her face, another deep gouge marred the right side of her face by her jaw, and several lacerations marked her ribs. It took nearly three hours of surgery to repair the wounds.

Similar incidents, some less serious but potentially as dangerous, have oc-

Jack Weaver retired June 25. During his career, Jack wrote "Trapline Tips" from 1979-1981 and "From the Fur Shed" from 1979-1980. He started the DGP Diary in 1977, and wrote the column in 1978 as well. He wrote "Looking Back" in 1989. Further, in 1995, to commemorate the agency's 100th anniversary, he wrote "Profiles in Conservation," each month highlighting the accomplishments and exploits of agency officers from the past. Although now retired, Jack promises to continue writing for *Game News*.

In response to growing public interest and concern about bears, the Game Commission has developed *Living With Pennsylvania Black Bears*, a free 8-page brochure that focuses on how to reduce bear nuisance problems around the home and while camping, and bear encounter do's and don'ts. Copies can be obtained by writing the Pennsylvania Game Commission, Dept. MS, Harrisburg, PA 17110-9797.

curred across Pennsylvania in recent years. According to PGC biologist Gary Alt, there are no known records of a Pennsylvania black bear killing a human in the commonwealth.

Pennsylvania's bears have, for the most part, been perceived as timid beasts that would sooner run than fight.

In the case of Mrs. Millington, the officers were not able to determine if the bears were a sow and cub or a boar and sow (mating season for bears occurs during June and July.) Either situation could be dangerous, especially when the dog is considered. One rule should always be followed when in any wooded area in Pennsylvania: Keep your dogs on a leash. Also, if a bear is encountered, make enough noise to let it know you're there and get off of any trails. A startled bear will often take the path of least resistance, and some people have been run over by bears that were simply trying to escape.

David Coppinger was walking home from a friend's house one September evening. It was nearly dusk, a time when bears are active.

David was walking on a woods trail when he rounded a corner and came face-to-face with a black bear. At first, he did the right thing: He turned around and started walking away, although it might have been better had

he yelled first. The bear started following him. Frightened, David began running — a second mistake. Bears can reach speeds up to 35 mph.

When he looked back the bear was loping along behind. At this point David fell and decided to play dead. Another mistake, if a black bear is acting like a predator, it is, and has decided you are the prey. If you play dead, it's liable to begin eating you, so if you're really attacked, fight back with everything you have.

By just using their fists people have driven off hungry bears. Luckily for David, this bear was only curious. It began to sniff around him and push him around with its paws. Although the bear never bit David, he did receive superficial scratches on his shoulders, neck and chest. David was lucky. Ale Podstata was not.

Ale was working at a summer camp in Wayne County. It was after dark and he was walking in an area where there were several commercial dumpsters full of trash and discarded food. Ale noticed a black bear about 70 feet from him. As he turned to leave, the bear began following. Feeling threatened, Ale made a major mistake: He climbed a tree. It was believed the bear was a sow with at least one cub.

When danger threatens, a sow will often run her cubs up a tree. Apparently her cub or cubs were in a tree close to the one Ale chose to climb. Believing Ale was after her cubs, the sow attacked. The first swipe tore off Ale's shoe and ripped a deep gash from his ankle down to the pad of his foot. The bear followed as Ale continued to climb, biting and slashing at his feet and legs, causing severe lacerations up to his knees. By the time Ale reached the top of the tree the melee reached the point of hand to paw combat. As the bear continued to swipe and bite him, Ale punched the animal in the head and nose. It was the blow to the nose that stopped the attack. The bear climbed down the tree and left the area. When help arrived, Ale was taken to Wayne Memorial Hospital, where

a surgeon used more than 300 sutures to close the wounds.

Garbage and food attracts bears, so to avoid confrontations, keep garbage inside until collection day. Don't make it available for bears. Most of all, don't feed bears.

An archery hunter camping at a state



THE RESULTS of Ale Podstata's encounter with a bear. He had the misfortune of unknowingly climbing a tree near some treed cubs while trying to escape a sow bear late one night.

park in Pike County opened a can of beef stew and placed it on his outdoor stove to heat. It wasn't long before he noticed a black bear approaching. The hunter didn't become alarmed, he had always heard that bears are easily frightened by a loud noise. Clapping his hands and hollering, the man attempted to scare off the bear. But this one didn't run off. Because the man was between it and the food, the bear reared up on its hind legs and knocked the man flat before ripping his vest and causing minor lacerations to his chest and arms. Then the animal grabbed the can of stew and ran into the woods.

Bears accustomed to people and the food sources associated with them often

lose their natural fear of humans and may become serious problems. People should never place food out that attracts bears. This is particularly dangerous in wooded developments or camping areas. Occasionally, dominant bears become protective of food piles and will even chase people away.

In a Pocono development someone was feeding several bears, against the wishes of their neighbors. When the persons doing the feeding left for several days, the pile of donuts soon disappeared. One afternoon their neighbor came back from shopping to find a hungry bear had broken into her home and ransacked the kitchen, causing serious damage.

Around the same time a father had just placed his 3-year-old son on a tri-



cycle in their front yard. Walking back inside, he heard his boy scream and turned to see a bear charging out of the woods toward his son. Jumping off the porch the father knocked his son off the bike and then grabbed it and hit the bear across the nose with it. The sow ran into the woods. As the father took his crying son back inside he noticed three cubs around the corner of the porch. The boy was between the sow and her cubs.

This bear was a frequent visitor to

a nearby development where people had been feeding it. Not only had this bear lost its fear of humans, it actually sought them out because it had been accustomed to receiving food from them. Even worse, in the process she was teaching her cubs to do the same thing.

In another development where a bear had become conditioned to humans, wildlife conservation officers had to kill the bear after it repeatedly charged joggers. This bear considered all humans walking through the development as threats to its territory. Even bears living in the most remote sections can be attracted to some of the scents hunters use — with dangerous results.

In recent years many archery hunters have reported disturbing incidents with black bears. The most common are reports of bears attempting to climb into their treestands.

In one incident the hunter clapped his hands and yelled at a bear that began clawing at the base of his tree. When the bear started climbing toward him, the hunter threw his knapsack at the animal. The bear ransacked the knapsack then started back up the tree. This time the archer beamed the bruin with his stainless steel coffee thermos. Finally, as the bear began to climb over the edges of the treestand, the hunter shot it at point-blank range.

Considering the scents many archers douse themselves in, such as apple, acorn and doe in heat, it's no wonder bears are attracted to them. Perhaps a measure of common sense is in order here. Bears inhabit many of the same areas as whitetails.

Jim Adams wasn't hunting from a treestand when a sow bear attacked him in Clearfield County three years ago. Jim was sitting on the ground at the base of a tree when a cub, most

likely attracted by his apple cover scent, came from behind and milled around close to him. Realizing a sow was probably nearby, Jim tried to scare the cub away. No sooner had he jumped up and shouted when the sow slammed into him, knocking him down and biting and slashing him from head to toe. The attack probably lasted only half a minute, but it left him with bites to the back of the head and into the bone of his arm, and with the backs of his legs slashed and torn.

Covered in blood, Jim staggered about 40 yards towards his cousin's house, only to blunder into the sow a second time. As before, the attack was vicious and quick. The sow batted him around in a 12-foot circle, biting and slashing in the process. After the bear lumbered off into the brush, Jim managed to walk the 700 or so yards to his cousin's house. The wounds — deep punctures and 5-inch tears — took hundreds of sutures to close.

Black bears should always be considered dangerous. They have tremendous strength and quickness, and they can swim and climb trees well. They are dedicated to protecting their young, and may attack people if provoked. Although people shouldn't live in fear of bears, they should exercise caution and common sense wherever bears may be encountered. This includes keeping control of pets, refraining from artificial feeding of any wildlife that may attract bears, managing garbage disposal and learning the correct things to do when a bear is encountered.

Making noise may help, provided you are not close to a sow and her cubs. If attacked by a sow with cubs, fighting back may only enrage the animal further. On the other hand, if attacked by a single bear you should fight back with determination. Do not become alarmed if a bear stands up on its hind legs. They frequently do this to better identify what's troubling them. If you encounter a bear, back away quietly. If the animal acts threatening, make noise — lots of noise. □



The Broken String

By Bob Steiner

FINE SNOW filtered through the late afternoon sky. Bow in hand, I leaned motionless against a forest “giant.” A sapling from the huge beech broke my outline, and I could see that yesterday’s snow was pawed and trodden by cloven hooves. Deer had recently dug there for beechnuts. It was the most promising spot I had found in a week of walking my favorite archery hunting haunts.

The rut had gone numb that last week. A few lone deer tracks — toes dragging,

splayed and bigger than average — told a tale of bucks still chasing does, but I had seen no chases, or no deer tearing wildly back and forth, caught in the full swing of the annual fall ritual.

All remained silent as my watch ticked away the remaining moments of the bow season. There was nothing to do except watch the falling snow and ward off the chill trying to find a chink in my wool armor. I shrugged

into the comfort of the clothing and enjoyed the moment.

In one sense, I had lost and should have been despondent. After all, for 15 years I had won each season. For 15 seasons in a row I had tied my Pennsylvania tag to the ear of a bow-killed buck. As darkness settled, I realized there would be no miraculous conclusion to this season that would keep the string unbroken. Quietly, in the hushed tones of the early winter woods, my string had been snapped. And nobody noticed.

I don't know what I expected. I knew I wouldn't get any acknowledgement from the deer. I figured that relatives, friends and acquaintances would realize that my string of archery bucks was gone.

As my watch hands signified quitting time, I removed my orange cap and bowed to the forest. I spoke out loud, "Great game; this year you are the victor." I smiled and began the walk out on the game lands road to the car.

I was proud of my game. I had played hard. I just hadn't taken advantage of the weaknesses when they appeared. Apples were not abundant in the early weeks of the bow season on the public ground where I do most of my stand hunting, so I opted for a ground hunting strategy, hoping to uncover new hotspots.

I was having so much fun sneaking around new spots that I failed to hunt several traditional early rut areas when they began to heat up. I had shot a buck in each of these areas in prior

years. Climbing into a treestand and shooting another deer at the same scrape didn't seem like a challenge.

When the fourth week of the season rolled around, I started three weeks of vacation. Archery hunting friends from across the state arrived to participate in (we hoped) the fall venison gathering. The second or third day of that week I rattled in a young buck with a crooked right antler. He approached very cautiously, to within 20 yards, no doubt fearing the worse from the

two obviously bigger "bucks" he heard fighting. I passed

on an opportunity for a broadside shot in hopes of either a closer shot or for more antlers. The little buck walked out of my life a few minutes later and remained out of sight for the remainder of the season.

A few days later, the opening morning of turkey season,

I was in a treestand along a natural funnel where I hoped turkey hunters would push deer past me. Shortly after starting time I noticed deer moving my way. Two adult does walked to within 15 yards of my stand and stopped, looking back. I checked their back trail and saw no more deer coming. Shoot one now and you can hunt turkeys this afternoon, I thought, as the arrow sliced neatly through the lead doe's chest. She made a few short bounds and rolled to a stop. My doe tag was filled for the year.

I remained in the tree for a few moments, savoring the moment, and then got down to the ground and began to pack up my portable stand. That's when motion caught my eye. A forkhorn, looking lean from a week of chasing does, trotted towards me, stopped and stared not 20 yards



away, then meandered off. The law says you can take only one deer a day, and that's probably a good thing. I carted the doe out on my deer carrier.

On Wednesday afternoon during the fifth week of the season, a friend and I drove to our hunting area at a large county park. As we neared one of the cornfields, I spotted a big 8-point standing along the road. My friend pulled off to the side of the rural road, and we gawked at the antlers of the huge buck as he stood with a doe. This buck was better than any of the two dozen I have taken over the years. To shoot him would have been no trick had I stepped around the back of the van. But that is illegal. Besides, it would be like settling for tee ball when you know you're capable of playing in the majors. Something just wouldn't have been right about it, even if it had been legal.

My last chance to keep my string intact came late that same week, as I stood high up in a cherry tree overlooking a scrape. My rattling and grunting efforts were rewarded with a small, but legal, spike coming towards me. But he stopped short, distracted by the wild cherries on the ground about 40 yards beyond the scrape. For 15 minutes I watched as it ate. I rattled and grunted, but the buck acted as though he had gone deaf. He kept munching cherries, not moving any closer, until quitting time. I removed the arrow from the string and began to lower the bow to the ground. The spike walked into an opening, perfectly broadside and watched the bow's descent from 25 yards away. Once the bow was on the ground, he walked off. I wasn't even tempted. A deer taken after quitting time is not only against the law, but it's like a fieldgoal kicked after the game is over — it just doesn't count.

The next day, after a rainy morning, I was out again, still trying to find a buck. I eased onto a grassy gas line and saw a coyote hunting mice. Eventually, the coyote focused on me and drifted into the woods. I hunted the direction it had gone and

jumped a buck that had a symmetrical rack about 15 inches wide. I was within 20 yards when he bolted from the high weeds, giving me only glimpses at the top of his bounds.

The buck had been gone only a minute when I heard the sound of a dog chasing a deer. The yipping of the dog came closer, and I realized it wasn't a dog at all, but rather the coyote, and it was running after the buck I had just pushed. I quickly found higher footing on a downed log that allowed me to see into the goldenrod field.

I have been coveting a coyote hide for years, even going out of state to hunt them unsuccessfully once. Now my mind raced. Only a couple of days were left to continue my buck string and one was headed right for me with a coyote on its heels. On the other hand, I thought, I might be about to get a rare chance to collect a coyote with a bow. The question of which shot to take was still rattling around in my brain when the chase moved through the field out of range. I could follow it only by sound. I didn't know if I was sad or glad at not having to make a decision.

Now the last day of the archery season was over. Reaching the car I stood under a towering hemlock and shook the snow from my wool jacket. In six weeks I had gone from hunting in summer-like conditions to winter. Insulated shirts and hats with earmuffs had replaced the T-shirts and bug nets worn during early October.

My buck tag was still on my license, but there were no regrets. I felt I had played hard and passed all the important tests. I had done what was right.

As I placed the bow in the back of the vehicle, I realized that while my string of buck kills was gone, the most important string was yet unbroken. It had been another successful season. □

Last month we took a look at muzzleloading rifles and some of the accessories needed to get started in this exciting form of shooting. This month we'll go step-by-step through . . .

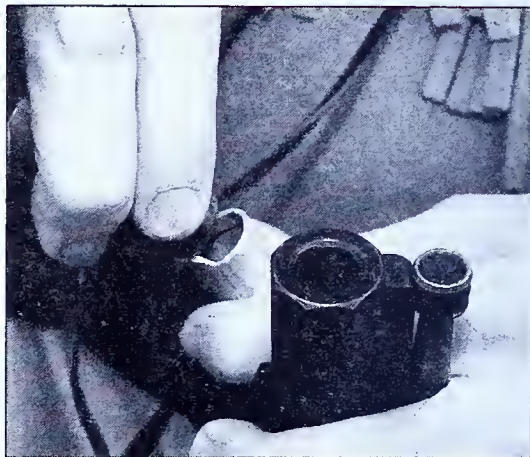
The Loading Process

By Tom Mitchell

LOADING a flintlock rifle is not complicated at all. Until you become proficient, though, it's important to go slowly, step by step. First, with the frizzen open and the hammer down, run a dry patch through the barrel, to remove any oils or lube. After wiping the bore clean, measure an amount of powder — in this case, the recommended starting load — and pour it down the muzzle. Never pour powder directly from the can or powder horn into a barrel. If an ember from a previous shot would ignite the charge, the entire can or powder horn could explode. Instead, pour powder first into a powder measure and then into the bore.

After the correct amount of powder is loaded, a lubed patch is centered on the muzzle and a round ball is then centered on the patch. From this point on the flintlock must be pointed in a safe direction. A starter rod, or ball starter, is used to push the patch and ball a few inches into the muzzle. The ramrod is then used to push the patched ball the rest of the way down the bore, until it's seated on the powder charge.

It's important to seat the ball and patch firmly on the powder, being sure to leave no air gap between the patch and powder. A gap will create danger-



THE FIRST step in loading a muzzleloader is to measure powder accurately. The measurer shown here is an antler hollowed out to hold 70 grains of FFg black powder.

ous pressures, which at best will affect accuracy or, worse, rupture the barrel. Consistency is the key to seating the patched ball on the powder charge; do it the same way, time after time. Many shooters make "witness marks" on their rods with indelible ink to indicate the depth of a load for a given amount of powder. For example, a rod may have marks to indicate 50-, 60-, and 70-grain loads. The ramrod should then be returned to the channel under the rifle.

After loading powder and patched ball the next step is to prime the pan. Here again, care must be used. At most, a pan should be filled only to level, perhaps less,

with primer powder. At no time should the priming charge cover the touchhole. One method I use with good success is to fill the pan about halfway with powder, allowing it to collect on the right of the pan (assuming a right-hand flintlock is used). About 2½ grains does the job. An important tool for priming the pan is called, you guessed it, a pan primer. Pan primers are usually made of brass and hold about 25 to 30 grains of FFFFg powder. Pressing the pan primer firmly on the bottom of the pan allows just the right amount of powder to flow into the pan. After the pan is filled and the frizzen is shut, I give the rifle a tap on the left side to settle the priming powder to the right side of the pan and to ensure the main charge in the breech is settled against the touchhole. Remember: After the ball is seated, for the remainder of the loading process, keep the flintlock pointed down range or in a safe direction.

All that remains is to cock the hammer, aim and fire. If all procedures have been followed correctly, the flintlock should go off. The ignition of the main charge should seem instantaneous — there should be no greatly discernible time lapse between the time the flint strikes the frizzen and the rifle fires. Learning to load and fire a flintlock is a process that is perfected through experience; there is no substitute for practice.

Accessories

Obviously, there are certain accessories necessary for flintlock shooting. I've already mentioned a ball starter and pan primer. A shooter must have something to carry the powder in. Powder cans are not acceptable. Most shooters carry a traditional powder horn. Custom made, richly engraved horns can cost several hundred

dollars, but good, serviceable horns are available for about \$20. One word of caution, though: Some horns have a wooden plug that's pulled to allow the powder to flow into the measure. The idea is traditional, but in humid or rainy weather, the stopper plugs may swell, making it difficult to get them out of the horn. A few years ago I broke a stopper in the horn. Since then I have switched to a horn with a brass filler tube. It may not be traditional, but it works in all types of weather.

Another necessary tool is a touchhole pick, used to clear the touchhole liner when it becomes clogged with burnt powder residue. Commercial touchhole picks cost only a few dollars and come in a variety of shapes and styles, but a paper clip or stiff piece of wire works

fine. Some shooters use touchhole picks made of brass, to eliminate any chance of static electricity setting off a spark and igniting a charge.

You'll also need the proper size cleaning jag to match the caliber of your rifle. The jag screws into one end of the ramrod and is used to wipe the bore with a lubricated or wet patch between shots. After cleaning, run a dry patch through to mop up excess lubricant or moisture. Invariably, a patch will get stuck in the bore when the rod is retrieved. A simple accessory called a patch retriever can be used to snag the patch and pull it out. Like the jag, the patch retriever screws onto the end of the ramrod.

If you shoot long enough you will eventually have to agonize over a stuck



A LUBRICATED patch is centered over the muzzle, and then a round ball is placed over the patch.

ball. The most common cause of stuck balls is simply forgetting to pour in a powder charge before ramming down a patch and ball. It happens to the best of us. A common but by no means fool-proof method to retrieve a stuck ball is to use a bullet puller. Similar to the patch puller, bullet pullers simply screw into a threaded end of the ramrod, then are inserted into the barrel and screwed into the soft lead ball. Once the threads are firmly screwed into the ball, it may be possible to pull the ball out the bore.

In actual practice, that's easier said than done. And never use your ramrod to retrieve a stuck ball. Wooden ramrods can easily break when much force is applied, and when retrieving a stuck ball, a lot of force is used. Fiberglass rods, which are not as prone to breaking and are used by many shooters in the field, can have the threaded metal end pull out. When retrieving a stuck ball, the best rod to use is an all-metal range rod, available wherever black powder supplies are sold, or a heavy-duty cleaning rod threaded to match the ball puller attachment.

At least one company makes a CO₂ device with an adapter for flintlock rifles that will safely expel the ball (and any unfired powder) out of the bore. Lacking such a device, you might try removing the barrel, unscrewing the touch hole liner and blowing compressed air through the touchhole. This method saved me a lot of grief on at least one occasion.

No muzzleloading kit would be

complete without a good quality screwdriver and a pair of pliers. You will also need to carry spare flints, patches, balls and extra priming powder (empty plastic 35 mm film cans make good containers for a backup supply of primer powder). Although the above list may seem a bit overwhelming, every item will fit neatly in the last muzzleloading accessory we'll mention: the possibles bag. I believe that the bag is

so named because in one you can carry everything you would possibly need for a day or several days worth of shooting. Like powder horns, fancy elk hide possibles bags that are richly decorated with hand-sewn bead work, can cost several hundred dollars. A good leather economy model, however, can be had for \$20 to \$25.

The Cleaning Process

After the shooting is done, the muzzleloader must be thoroughly cleaned. This must be done right away, because black powder is highly corrosive. If left unattended for even a day, metal contaminated by

black powder will begin to rust and pit. Commercial cleaning solvents for smokeless powder arms should be left on the shelf. Although it's another hotly debated issue, the best cleaner for barrels fouled with black powder is simply soap and water. It's not necessary to use hot water, but I do because hot water heats the barrel, which hastens the drying process. After removing the barrel, flush it with plain water, followed by a dousing with soapy water. (Common dish soap works fine.) Next, run several patches that have been soaked in soapy water through the bore, followed by at least 10 strokes with a brass brush. Run a few more soapy patches through, and if



AFTER the patched ball is started down the bore with a ball starter, Curt Boals drives it down the bore until it is seated firmly on the powder charge.

they come out clean, flush the bore several times with plain water, followed with a few more plain water soaked patches. The next to last step is to dry the bore with clean dry patches. I dry the outside of the barrel with a clean cloth or paper towel. Finally, use a few patches that have been lightly lubed with a black powder bore lube to coat the bore. The lubed patches can then be used to swab the outside of the barrel. Clean the pan, frizzen and other outside metal parts with a water soaked tooth brush, then dry and give a very light coat of bore lube. Instead of water, some shooters prefer to use waterless black powder solvents. I've no quarrel with this idea, I have used such solvents myself, and they work fine. Using both methods, I have never had a black powder firearm rust, corrode or pit.

It's a good idea to periodically remove the lock from the stock and clean it. This eliminates the possibility of priming powder building up between the lock and the stock, a potentially dangerous situation. If shooters make sure that the primer pan is held tight against the barrel, with no gaps, there will be little, if any, possibility that powder will accumulate in the lock.

Safety

All the rules of gun safety that apply to shooting smokeless powder firearms also apply to muzzleloaders. There are, however, some additional safety precautions that must be observed. Never mix two types of powder, FFg and FFFg, for example, in the same load. Years ago, someone actually suggested pouring a small amount of FFFFg (priming) powder down the bore in order to give the main charge an extra kick. It is a wonder that neither the writer nor the magazine that printed the article, was sued. Perhaps in this case, the readers had more

sense than the author.

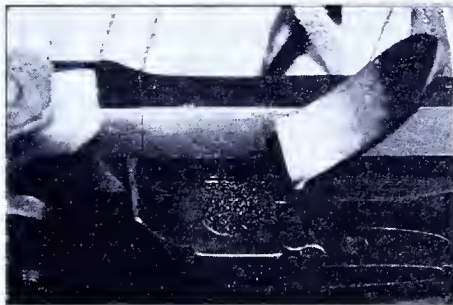
A far worse idea is using smokeless powder in muzzleloaders. Never use any amount of smokeless powder for anything having to do with black powder guns — never.

I recently came across on the Internet what has to be the dumb idea of the century. An individual gave a formula for making black powder at home. The second consideration to this idea is that attempting to make your own black powder is, in all respects, illegal, but first and foremost, one has to be a suicidal fool to even think of trying it. Every gun related

accident is a negative reflection on all gun owners, and every such mishap gives more fuel to the anti-gun, anti-hunting crowd. Shooting muzzleloaders and handling black powder is far less dangerous than driving a car

down a busy interstate highway, a shower at home, or swimming in the family pool. Muzzleloader shooters have an excellent safety record. Let's all strive to make it even better by using common sense along with practicing basic gun safety at all times.

This year hunters may purchase muzzleloader licenses through the end of August. If you would like to follow in the paths of our ancestors, if you rise to the challenge of one shot, quick kill, consider buying one. You still have several months to buy a muzzleloading rifle and all necessary accoutrements, and then go to the range and become familiar with it. Muzzleloading will open the door to some of the best late season deer hunting in the Northeast, right here in Pennsylvania. □



USE ONLY enough priming powder (FFFg) to fill pan to level, or slightly less than level.

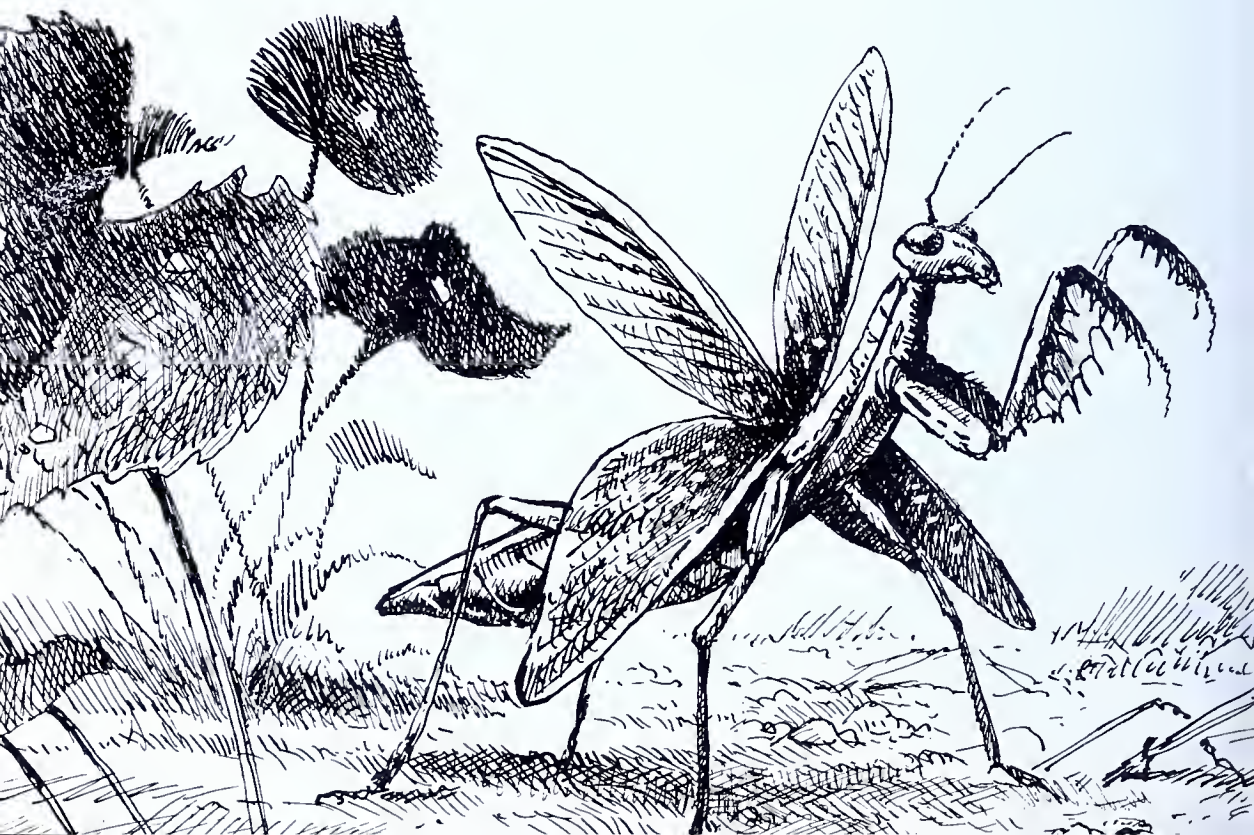
PRAYER FOR A MANTIS

A PRAYING MANTIS jumped from a rhododendron bough and landed on the porch just as I was stumbling up the steps with a bag of groceries in each arm. I would have crushed it in the next instant had Terry not noticed its slight form in the shadow of my shoe. "Stop!" she cried. I paused in mid-step and saw the mantis reared back in a defensive posture. We quickly scooped her into a small plastic terrarium, as I wanted to keep it for a few days to study and draw.

Terry placed an African violet and some fern fronds in the terrarium. A small moth released from under a hairy leaf and flitted about. Although she had been in her new home only a few minutes, the mantis quickly snatched the moth and began feeding in earnest, first by snipping off the powdery wings, then biting directly into the abdomen. In the days that followed, it seemed the mantis liked this little bed and breakfast as she readily gobbled up a steady stream of crickets, flies and moths that we caught.

I kept her next to my drawing board and studied her with a magnifying glass while she studied me with her one good eye. Her right eye appeared dark and shriveled and the right antennae was much shorter than the other; damaged perhaps in a battle with a bird. She was about four inches long and the raw umber color of baked earth. I marveled at the complex topography and textures of her appendages. Because the mantis can turn its head, it assumes a humanlike demeanor that contributes to our fascination with it.

At week's end I returned her to the flower garden. With the exception of falconers, modern zoos and rehabilitators, I cannot abide the practice of harboring wild critters, even an insect. I released her on a bloom of yarrow, where she stubbornly remained for



two days, even when prodded. She also made no attempt to capture any of the multitudes of flies, wasps, bees and other insects that worked the flowers. On the third morning of her release, though, a translucent replica of the mantis had assumed her place, a mantis mannequin that was her molted skin. She clung to a stem below the blooms, fresh and robust, contentedly munching her breakfast. After that, she disappeared into the verdant depths of summer. I admit that I missed the mantis whenever I looked into the empty terrarium or at the drawings of her tacked up on the bulletin board.

PENN'S WOODS

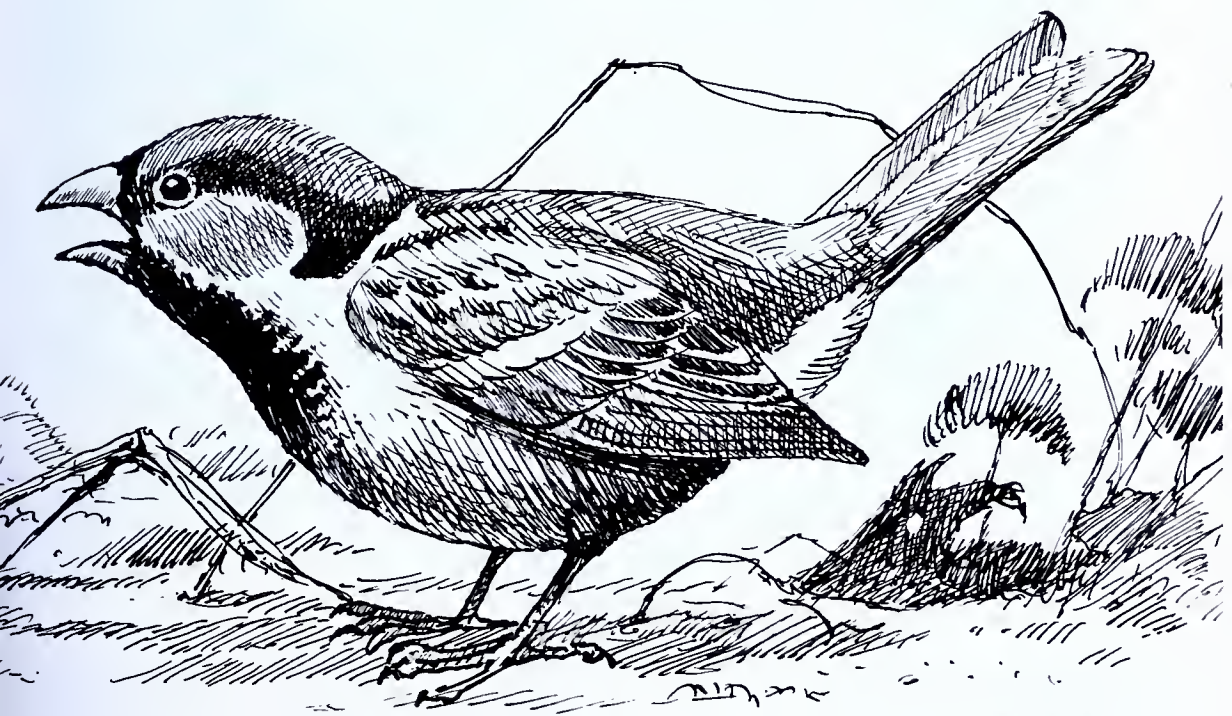
SKETCHBOOK

BOB SOPCHICK

One of my favorite books is T.H. White's *The Goshawk*, a vivid account of White's trials and tribulations as a novice falconer with his charge "Gos," a Germanic goshawk. Gos is White's link to the natural world. I mention White's book here because I sensed a similar bond between myself and the mantis, a predator in every way as remarkable as a goshawk. White refers to Gos as "a person who is not human," in the same manner as I regarded the mantis. After reading this book again I decided that if I found this mantis I would bring it back to live in the studio.

With July came drought, sweltering days that boiled over into late September. I watched the garden daily for the mantis. I found another on a sunflower, but it had matching antennae and two perfect eyes. Then, one cool October morning after several days of rain, I spotted her on the rhododendron outside the kitchen door. She swayed gently as she moved, mimicking a leaf in the breeze. We found a larger terrarium in the basement and created a habitat with smooth stones, gravel, rhododendron clippings, twigs, ferns and the flaky skull of a spike buck.

Her favorite perch was atop this deer skull, where she waited like an insect Cleopatra,

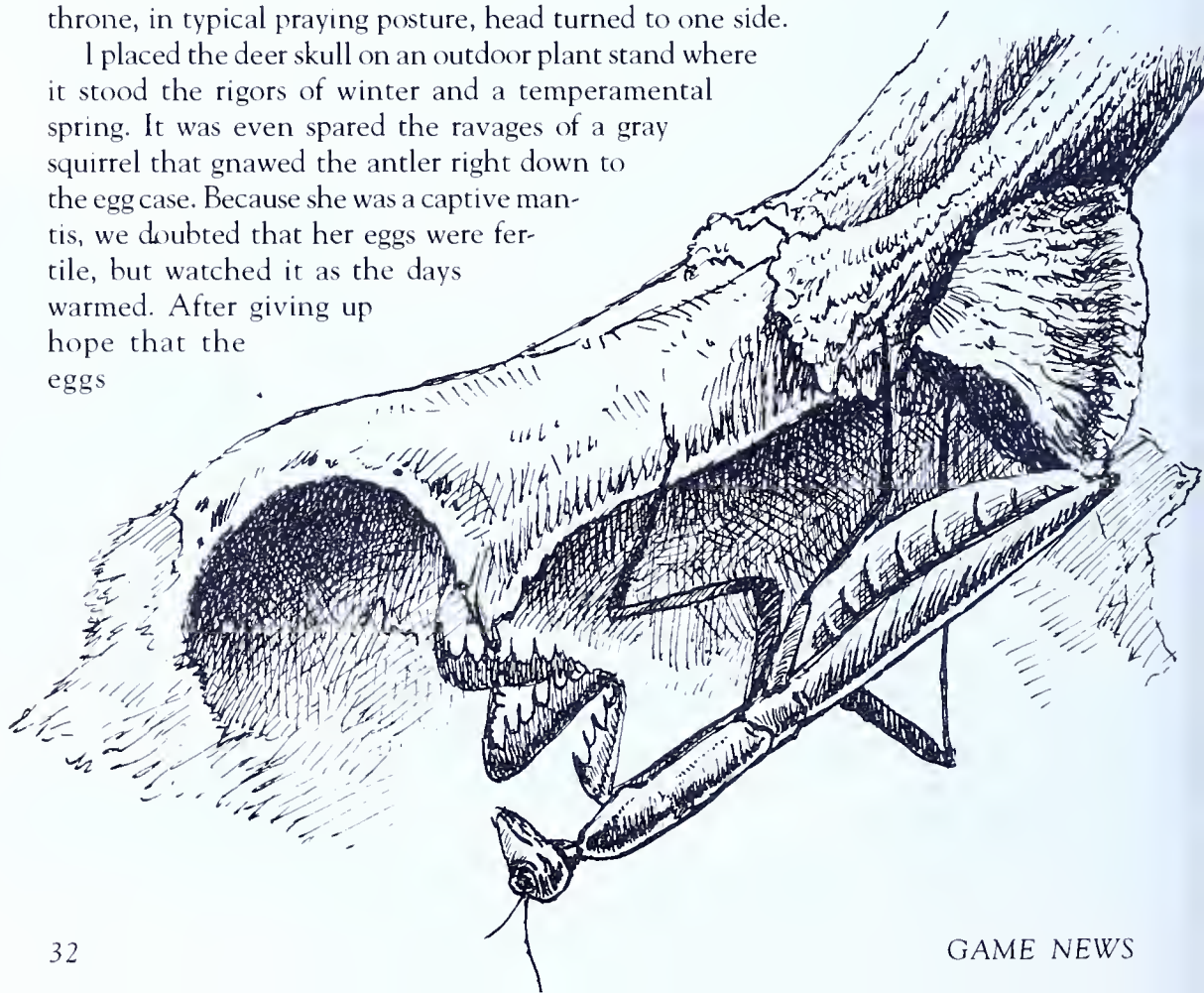


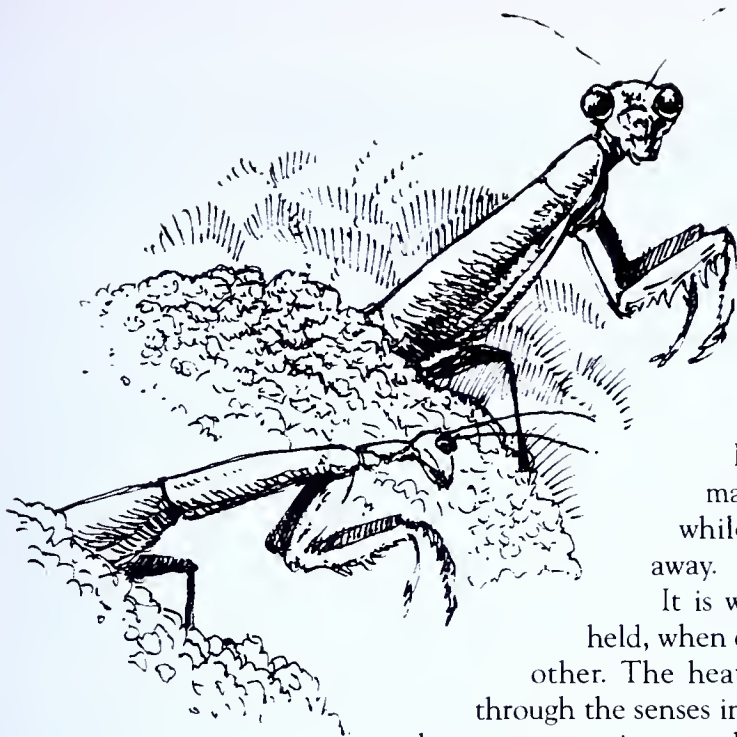
weighing the value of tributes we so humbly presented. I dug up small garden worms as a special treat for her. She would take them eagerly, holding each end of the writhing worm in those deathtrap forelegs until every juicy morsel was devoured. After dining, she would meticulously clean each spike on those formidable legs, wash her face like a cat, then finish by grooming her antennae.

Cleo, as we called her, seemed to possess a mercurial temperament. Mostly she was shy and retiring, but when hunting, her intense predatory focus was unwavering. While stalking grasshoppers she clung from impossible positions as the unknowing prey moved within range. She rarely missed her mark, striking faster than the eye could follow. Sometimes this *femme fatale* was quite demure, especially when she drank drops of water from the end of a sable watercolor brush. When startled, she would rear up quickly and spread her great dark wings. If I held a buzzing insect in a tweezer, she would stalk towards it, her shape vaguely reminiscent of an oriental warrior in full battle regalia. Up close, her countenance was frightening; I could only imagine how terrifying she would be had I been the insect and she were 15 feet tall.

On the morning of October 26 I was delighted to see her clinging upside down on the deer skull, depositing a frothy egg case about the size of a walnut on the base of an antler. By the second week of November, Cleo's internal clock had wound down. In the remnants of the flower garden a few sluggish wasps and bumblebees buzzed about, and in the evening only one wayward minstrel remained from the cricket orchestras of previous weeks. Long gone the garden spider, and not a single moth spiraled at the porch light. Brown oak leaves covered the lawn in the way her brown wing concealed the green wing edge folded beneath. Cleo died on her throne, in typical praying posture, head turned to one side.

I placed the deer skull on an outdoor plant stand where it stood the rigors of winter and a temperamental spring. It was even spared the ravages of a gray squirrel that gnawed the antler right down to the egg case. Because she was a captive mantis, we doubted that her eggs were fertile, but watched it as the days warmed. After giving up hope that the eggs





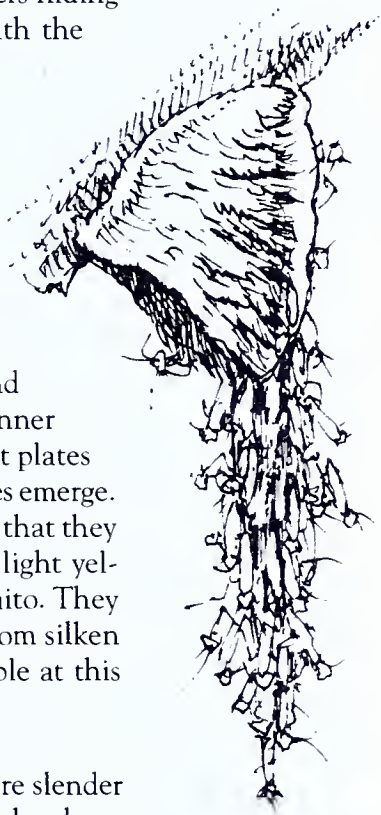
would hatch, I passed by the skull on a hot afternoon on May 20, and noticed that it appeared mossy and seemed to be moving. It was covered with hundreds of tiny mantes! After drying in the breeze they leaped into the shrubbery. When I placed a finger near the mass, several scrambled onto it while others sparred or scurried away.

It is wondrous when time can be held, when one season re-emerges in another. The heat of summer radiates again through the senses in winter when a jar of blackberry preserves is opened. Autumn leaves trapped in winter ice drift again in spring melt. A brachiopod fossil reveals that this land was once an ancient ocean, a flint arrowhead unearthed near a stream conjures a more recent time. In nature, the seasons are stored in seed and fat, bud and egg case. I shook the stragglers hiding in the deer skull into the garden, sprinkling the yarrow with the minutes of summer past.

The female mantis forms the egg case on branches, twigs, stems and weeds several feet above the ground. It takes several hours for a mantis to produce an egg case. A gummy substance squeezed from the tip of her abdomen is beat into a froth by small whirling appendages. The eggs are laid in this bubbly froth that she forms by moving her abdomen in expanding ovals. The new case is tan, but as it hardens it attains a rich brown hue. The case is durable, and can endure the wrath of any winter storm, especially the inner chamber that houses the eggs. In the front of the case are flat plates separated by tiny spaces from which the newly hatched mantes emerge.

Newborn mantes are exact miniatures of the adult except that they lack wings, which develop later. These delicate insects are light yellow-green with dark eyes and are slightly larger than a mosquito. They emerge from the chamber and dangle as a throbbing mass from silken threads, but soon head for leafy cover. Mantises are vulnerable at this stage to predatory insects, birds and siblings.

The male mantis lingers near the larger female. He is more slender and lighter than the female and can fly a great distance. It has been documented that after mating, the female may cannibalize the male, but this is not always so, and is more apt to happen with captive study specimens than actually happens in the wild.





FIELD NOTES



Good and Bad News

BRADFORD — Athens Area High School teacher Tim Miller made arrangements with the school to bring several students in a school van to help me with a winter mortality survey. The women in charge of the vehicles at school asked Tim to check for leaks while he was out. Tim spent a lot of time looking under the hood, and I'm happy to report that he discovered no leaks. Unfortunately, we didn't find any leaks, either.

— WCO RICHARD P. LARNERD,
WARREN CENTER



Meals on Wheels

BEDFORD — On the first day of spring gobbler season I parked my vehicle and checked on an alleged baiting site on SGL 48. Forgetting that the deer rack on my vehicle held several bags of old doughnuts I planned to use to trap some problem bears, I should have known what would happen when I noticed a bear with two cubs heading for the road. When I returned to the vehicle I found the doughnuts scattered all about. Tracks in the mud confirmed that the bears were the culprits.

— WCO TIMOTHY C. FLANIGAN, BEDFORD

Determined

WYOMING — Veto Barzilowski swerved to avoid hitting a weasel chasing a chipmunk toward him in the middle of the road, then he watched the frantic chipmunk dash up a tree. The hungry weasel shot up right behind and snatched the chipmunk, then ran back down the tree and scurried under a rock.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Leave it to the Experts

YORK — A deputy and I decided to go trout fishing on our day off, but after four hours on the stream we hadn't caught a thing. While eating lunch we saw an osprey fly by and dive into the creek near the bridge where we had been fishing. It soon rose and swung back over us, displaying a nice trout. I was eating a sandwich but went directly to dessert — humble pie.

— WCO G.C. HOUGHTON, EMIGSVILLE

Myth

POTTER — I always tell people that coyote predation on turkeys is minimal, and now I have some evidence. A 3-year study done in West Virginia documented that a coyote killed only one turkey out of 60 that had been fitted with radio transmitters.

— WCO WILLIAM C. RAGOSTA, COUDERSPORT

Unusual

ERIE — On March 17 Bill Harvey saw seven deer in a field behind his barn, and he was startled to see a newborn fawn among them. This is the earliest I've ever heard of a fawn being born in this area. I'm wondering if it survived, though, because some severe weather moved in a couple of days later.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Gold Fever

Last spring I noticed a tree shimmering in gold. The tree was a flowering crabapple, and perched in it were about 25 goldfinches. The birds sported their new, bright yellow plumage.

— LMO EUGENE R. WEINER, JR., CAMBRA

Opposite Sides of the Fence

FRANKLIN — Deputy Floyd "Sperdie" Starliper and I were patrolling on SGL 235 on the gobbler season opener when we checked a hunter who told us that there were no turkeys or deer in the area, and that he didn't believe harvest statistics that the Game Commission publishes. We then drove a few hundred yards down the road and checked another hunter. This man told us that he had heard four gobblers and that deer hunting on the game lands has never been better. As we drove off, Sperdie said, "I sure wish those two guys would meet."

— WCO KEVIN L. MOUNTZ, ST. THOMAS

Sweet Tooth

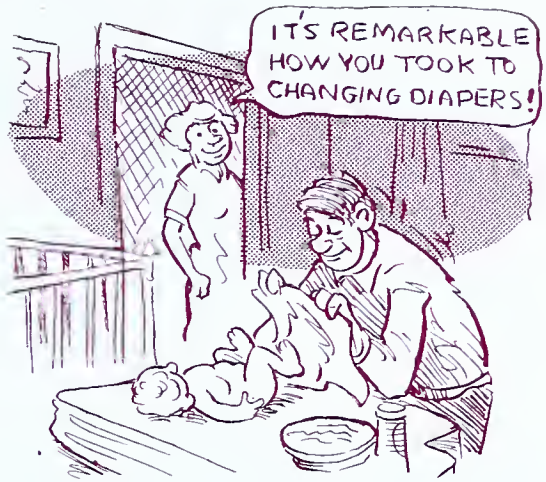
CLARION — At the Andes residence a wary bear in a culvert trap kept turning to face the tranquilizing jab stick, so Mrs. Andes gave me a freshly baked cookie to distract the bear. While the bear was busy eating the cookie, I was able to inject the drugs into its other end. After processing and loading it back into the trap to relocate it, I was able to sample some of the cookies myself. It's no wonder the bear was distracted.

— WCO ALAN C. SCOTT, NEW BETHLEHEM

Spoke Too Soon

NORTHAMPTON — I'm often asked if I hit many deer while patrolling. Until recently, I've been able to say no, but twice in three weeks Deputy Lou Rabenold and I had deer run into the side of the Game Commission truck. One of the deer went airborne off a steep bank and crashed through the truck cap window.

— WCO BRADLEY D. KREIDER, CHERRYVILLE



Unanimous Decision

MONTGOMERY — WCO Doty McDowell and I — who are both new fathers — were discussing changing diapers. We both agreed that we would rather change diapers than pick up 3-day-old roadkilled deer in the summer.

— WCO BILL VROMAN, FREDERICK

Early Arrivals

CLEARFIELD — On April 5 Deputy Anstead and his wife spotted two newborn fawns standing with their mother along Route 879 near Karthaus.

— WCO DAVID A. CARLINI, HYDE

Misleading

CHESTER — Local governments, insurance agencies and other organizations consider Chester County to be a suburb of Philadelphia. You'd never know it by the deer, bald eagles, beavers, coyotes and all the other wildlife found here.

— WCO KEITH W. MULLIN, OXFORD

Not Even Close

BUCKS — The noise made by a pileated woodpecker pales in comparison to the noise generated by 13 Brownies hammering on bluebird houses in a church basement.

— WCO BARRY A. LEONARD, RICHLANDTOWN



Townhouse

MERCER — Responding to a nuisance beaver call I found an unusual looking beaver lodge. It wasn't the typical symmetrical mound of sticks and mud, but rather a traditional lodge with an addition. I'm not sure if it's a duplex or a starter home with a wing added on. It almost looked like two lodges connected by a hallway. The industrious beavers have me wondering if I can outsmart them.

— WCO DONALD G. CHAYBIN, GREENVILLE

Playing Hard to Get

ELK — A man here videotaped three jakes that came into his hen decoy, and while two fought over the fake, the third pulled the detachable head off and ran into the woods. I always thought that hens are supposed to be more responsive.

— WCO RICHARD S. BODENHORN, RIDGWAY

Tunnel Vision

MONROE — WCO Tom Swiech pointed out some Canada geese and mallards that were swimming in a creek. A quick glance confirmed the geese, but I couldn't see the ducks. About the time Tom was questioning my eyesight he walked right into the end of a handrail on the walkway. It would have been great to watch on one of those funniest home video programs.

— WCO RANDY L. SHOUP, LONG POND

Close Call

I came upon two grouse squaring off to fight on a dirt road when a hawk emerged from the trees, scattering the grouse and nearly making a meal of one of them.

— LMO JOHN C. SHUTKUFSKI, DAMASCUS

Cooperation

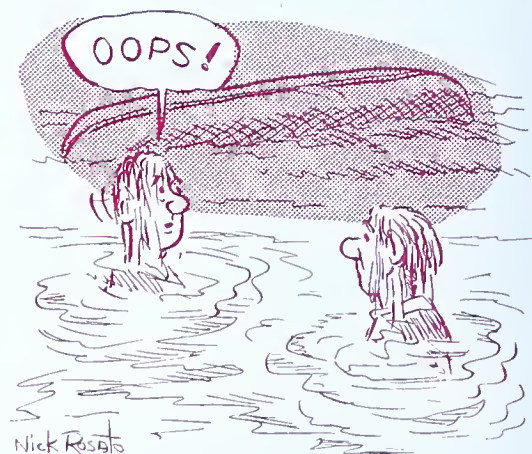
Reed Johnson and the Susquehanna Chapter of the National Wild Turkey Federation distributed more than 2,300 bags of seed corn and 1,200 bags of sorghum to 28 local NWTFF chapters, four state forest districts and the six Game Commission region offices to be planted for wildlife. Special thanks goes to Grice Gun Shop in Clearfield for storing the seed.

— LMO COLLEEN M. SHANNON, GRAMPAN

Sorry, Barry

ARMSTRONG — I was scheduled to do two programs at the same time, so I asked neighboring WCO Barry Seth to fill in for one of them. Unfortunately, I confused the dates and we both arrived a week early.

— WCO RICHARD F. WEAVER, DISTANT



Rookie

New Food & Cover employee John Pfaff received a "baptism" in a cold lake here early last spring while helping with a goose survey. It would have been funny if I hadn't been in the canoe with him.

— LMO JERRY A. BISH, CONNEAUT LAKE

Posted Notice

HUNTINGDON — Deputy Scott Walters and his 5-year-old son, Nathan, built and erected a bluebird box, and within two hours a pair of bluebirds moved in. I wonder if the message Nathan wrote in crayon on the side of the box influenced the bluebirds. It said, "No snakes allowed."

— WCO JOHN B. ROLLER, HUNTINGDON

Insurance Adjuster's Nightmare

LYCOMING — When I responded to a call about a bear scratching up a man's pickup truck, the marks on the shiny new truck didn't seem to be ones a bear would make, and I soon recognized beak marks. The owner didn't believe my assessment, but soon changed his mind when the culprit appeared. It seems a male robin saw its reflection in the new paint, and thinking it was another male, attacked it.

— WCO TERRY D. WILLS, WILLIAMSPORT

Piece of History

BRADFORD — At an auction in Troy I purchased a sneak boat and paddles that had been used by Game Protector legend Bob Latimer — who passed away several years ago — on the Susquehanna River. On one of the paddles Bob had pasted a note recording that while hunting from 1949 through 1986 he had taken seven brant, 130 Canada geese and 2,863 ducks. Of all the agency items I've collected over the years, these are certainly the most prized.

— WCO WILLIAM A. BOWER, TROY

Speakin' Their Language

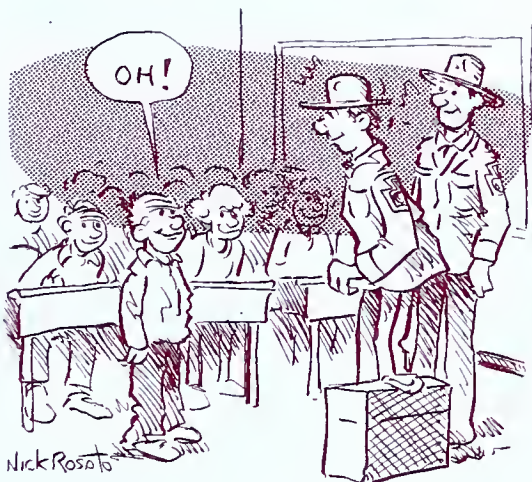
At an unnamed garage in Sayre (reputed to be the hangout of some turkey hunting experts), a conversation was overheard as to what type of turkey call worked best. After much deliberation, a unanimous agreement was reached: the tractor-towed manure spreader produced the best sounds.

— LMO RICHARD J. LUPINSKY, SR.,
EAST SMITHFIELD

Doesn't Get Any Better

CUMBERLAND — Deputy Ed Cline and I were patrolling SGL 169 on the gobbler season opener when we spotted an osprey with its catch perched in a dead snag. While we watched the osprey devour the carp, a big tom walked up next to us and began gobbling.

— WCO EDWARD B. STEFFAN, NEWVILLE



Wise Guy

WCO Mike Girosky and I presented a slide program at an elementary school on wildlife den sites, and then we showed the students artificial nesting boxes. One observant youngster pointed to the only box we hadn't talked about and said, "What's that box a home for?" Without hesitating, Mike explained that it was a very unusual box. "It's designed to be a home for a slide projector," he said.

— LMO BRAD MYERS, SIGEL

Myth

BRADFORD — During April I attended a Game Commission meeting, trapped a couple of bears, tried to trap some beavers, attended training, attended local sportsmen's club meetings, did programs for both Girl Scouts and Boy Scouts and had to prepare for spring turkey season. I'm still trying to find that "slow season" people always ask about.

— WCO VERNON I. PERRY, III, MONROETON

Nice Try

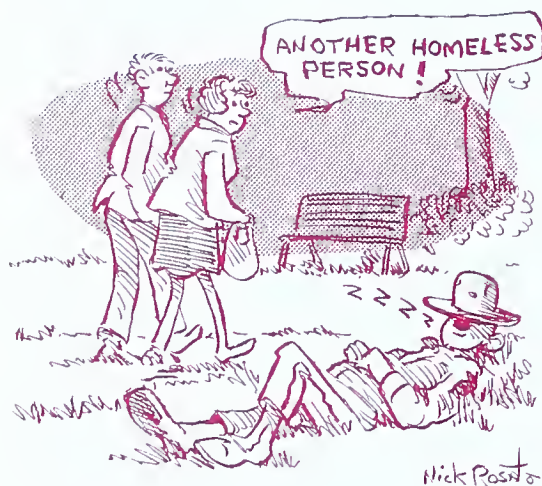
PERRY — At a local Envirothon one young man apparently had romance on his mind. His reply to the question "What is a female fox called?" was "foxy lady."

— WCO JIM BROWN, LOYSVILLE

Appreciated

SCHUYLKILL — The Schuylkill County Sportsmen's Association bought portable police radios (at \$600 apiece) for me and my neighboring WCO John Denchak, because they were concerned for our safety. We can now contact — at any hour of the day or night — any police unit in the county. The support given to us by the more than 40 sportsmen's clubs makes all the long nights on patrol worth it.

— WCO STEVE HOWER, PINE GROVE



Piece of Cake

ALLEGHENY — Assigned here out of training school, I've been asked by many people what wildlife related duties I could possibly have in the big city. Well, in just four weeks I've had deer, turkey, squirrel, woodchuck, raccoon, skunk, bat and raptor nuisance calls. Then, there are many speaking engagements and more Hunter-Trapper Ed classes than I can possibly get to. And during my "spare time" I'm looking for a place to live.

— WCO RODNEY E. BIMBER, CLINTON

Poor Example

WESTMORELAND — Two turkey hunters here took a 12-year-old boy out for his first spring turkey hunt, and the youngster was experiencing the thrill of a loudmouth gobbler coming in fast to their calls. Just before the bird was in range, another hunter came running to intercept the bird. The only consolation was that in his greed to take the gobbler, the "sportsman" spooked the bird before getting a shot.

— WCO RODNEY S. ANSELL, MT. PLEASANT

Catch of the Day

CLINTON — Deputy Shimp and I were preparing to catch a nuisance beaver with a "clam trap" (trap shaped like a clam operated by springs that close the two halves around a beaver, catching it unharmed), and as I got the lure, Dave set the trap. Seconds later I heard the loud snap, indicating that the high tension springs had closed. I then had to decide whether to release Dave back into the watershed or relocate him to another county.

— WCO KEN PACKARD, MILL HALL

Beaver Not Included

WESTMORELAND — While traveling near a stream that had overflowed its banks due to heavy rain, Deputy Don Rupp and I noticed a beaver standing near a "For Sale" sign in the yard of a house near the stream.

— WCO GARY TOWARD, HYDE PARK

Peace and Quiet

INDIANA — WCO Patrick Snickles and I walked several miles of streams, doing a deer mortality survey, and when we came to the end of the route I turned to him and said, "One difference I notice between Indiana and Allegheny (my former county) is that for the first time ever, while conducting a mortality survey, I could hear birds singing. In Allegheny County I only heard traffic roaring by."

— WCO JACK A. LUCAS, BLAIRSVILLE

Wild turkey management plan signed

TURKEY MANAGEMENT took a major step this past April when the Game Commission put into place the "Management Plan for Wild Turkeys in Pennsylvania."

Drafted by wildlife biologist William E. Drake — who retired in June after a 29-year career with the agency — the new turkey management plan charts the course for even better turkey management in the future.

Plan objectives include: obtain reliable estimates of wild turkey populations for each turkey management area by 2005; maintain or exceed 1995 spring and fall statewide hunting success rates; optimize life requirements and minimize loss of suitable wild turkey habitat throughout the state; improve public knowledge and appreciation of the wild turkey resource and its management; and improve the safety, conduct and ethics of wild turkey hunters.

In addition, the plan seeks to improve hunter compliance with existing laws and regulations regarding wild turkey management; encourage legislation to prohibit game-farm turkey propagation, importation, exportation and the release of this stock into the wild; and to continue the proven practice of trap and transfer of wild turkeys while, at the same time, educating the public about the benefits of this program.



DON MADL, in one of his last official acts as executive director, signs the wild turkey management plan. Looking on are Don O'Brian, left and Don Heckman, right, of the Pennsylvania chapter of the NWTF, and in the back, left to right, PGC biologist Bill Drake, and Bob Boyd and Cal DuBrock, Assistant Director and Director of the Wildlife Management Bureau.

Wild turkey management in Pennsylvania has progressed through the stages of exploitation, protection and conservation, habitat regeneration, natural range expansion and, finally, trap and transfer range expansion.

"Information regarding wild turkey populations in Pennsylvania is very limited at present," said Drake. "Collection of reliable harvest rate data to estimate, or model our turkey population is critical. Reliable harvest rates are needed to assess the importance and effectiveness of present harvest management to our overall wild turkey management program."

Government agencies at federal,

state and local levels share the Game Commission's interests in natural resources generally and the wild turkey specifically. These include the bureaus of Forestry and State Parks within the Department of Conservation and Natural Resources and federal managers of the Allegheny National Forest.

That wild turkeys have become so abundant throughout the state over the past two decades is in no small way

due to the support of the National Wild Turkey Federation and, on the state level, the Pennsylvania chapter. Since 1987, the state chapter has provided more than \$1,363,600 through 620 Super Fund Projects. These have included total cooperator expenditures of more than \$8 million in Pennsylvania for habitat enhancement, land acquisition, education and hunter safety programs.

Wildlife conservation officers receive awards



RICH SHIRE

TWO WCOs from north-central Pennsylvania have been recognized for their outstanding career performances. Richard S. Bodenhorn of Ridgway, Elk County, was named the recipient of the Shikar-Safari Club International conservation officer of the year for Pennsylvania.

Shire of Middlebury Center, Tioga County, received the Pennsylvania wildlife conservation officer of the year by the Northeast Conservation Law Enforcement Chiefs Association.

Both officers are graduates of the Ross Leffler School of Conservation's 19th class, the last class to go through the school at Brockway. They graduated in February 1986. Both men also served as deputies before being enrolled in the school.

Bodenhorn, 49, has gone above and beyond the call of duty to further public understanding of the agency's deer program. He speaks regularly on the subject and has written several handouts. Bodenhorn has also played an important role in enforcing the new regulations prohibiting elk feeding and in performing security work during the elk trap-and-transfer program.

"Dick Bodenhorn's contribution to the elk trap-and-transfer project was critical," said Northcentral Region Director Hank Stankewich. "He's a credit to the ranks of wildlife conservation officers."

Shire, 49, who upon leaving the



DICK BODENHORN and, presenting the Shikar-Safari Award, Soski Piroff.

Shire of Middlebury Center, Tioga County, received the Pennsylvania wildlife conservation officer of the year by the Northeast Conservation

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

training school was assigned to Philadelphia County for eight years, has a very strong work ethic, is a thorough investigator and takes great pride in the performance of his duties. Over the past two years, Shire has shouldered responsibility for his district and a large portion of a neighboring one, where

he was involved in a major investigation involving several individuals.

"Rich Shire is the epitome of what the Game Commission wants in a law enforcement officer," Stankewich said. "He is a tremendous asset to both the Game Commission and the citizens of the commonwealth."

Murdered PA conservation officers added to National Law Enforcement Memorial

THE NAMES of two Pennsylvania game protectors and one Pennsylvania fish warden were among the 312 added to the National Law Enforcement Officers Memorial in Washington, D. C. during the 11th Annual Candlelight Vigil sponsored by the National Law Enforcement Officers Memorial Fund. To date, the names of more than 15,000 law enforcement officers lost in the line of duty are listed on the wall memorial, located at the beautiful memorial grounds at Judiciary Square, on the 400 block of E Street, NW, Washington D. C.

Lawrence County Game Protector L. S. "Seeley" Houk was ambushed and murdered on March 2, 1906, while attempting to serve arrest warrants near the village of Hillsville (See Feb. '95

Game News). Seeley Houk's name can be found on the memorial wall at panel 33 w, line 21.

Carbon County Game Protector Joseph McHugh was gunned down on November 7, 1915 while attempting to arrest a violator who was hunting rabbits on Sunday. Officer McHugh was survived by his wife and three children (See Dec '95 *Game News*). McHugh's name may be found on the memorial wall at panel 63 w, line 21.

Bradford County Fish Warden William Etheldred Shoemaker was murdered on September 22, 1921, while attempting to apprehend a violator who was fishing without a license. Officer Shoemaker was survived by his wife and two sons. Shoemaker's name may be found on panel 43 w, line 21.

THE Pennsylvania Trappers' Association recently donated three sets of tanned furbearer skins to the State Museum in Harrisburg. The furs, received by Anita Blackaby and her staff, will be used for educational programs conducted in the museum, to promote wise management and conservation of all wildlife in the commonwealth.



Middle Creek programs & art show

AN EXCITING lineup of programs is again planned for the Middle Creek Wildlife Management Area.

On July 7 & 8, Eileen Muller of Tri-State Bird Rescue & Research, Inc. will present "Oil Spills and Wildlife."

On July 21 & 22, PGC forester Dave Henry will present "Woodsmen, Spare that Tree," a program about managing forests for wildlife.

Programs are free and begin at 7:30

p.m. The Middle Creek visitors center is south of Kleinfeltersville.

On August 6, 7 & 8, the 14th Annual Middle Creek

Wildlife

Art Show

will be held at

Middle Creek. More

than 30 artists will be displaying and selling their artwork.

Hours for this extremely popular show are from noon to 8 p.m. on Friday, the 6th; 9 a.m. to 6 p.m., on Saturday, the 7th; and from 9 a.m. to 5 p.m. on Sunday, the 8th.



Retired PGC biologist honored

STEVE LISCINSKY, Game Commission biologist who retired in 1985, was recently awarded with the Pennsylvania Forestry Association's 1998 Sandy Cochran Award for excellence in Natural Resource Education.

During his career with the Game Commission, Liscinsky conducted

many deer, grouse and woodcock research projects, and also served as director of research. Since his retirement, Liscinsky has worked as a wildlife habitat management consultant. He's especially noted for conducting crabapple grafting workshops (See July '98 *Game News*).

Game News contributors capture POWA awards

GERRY PUTT, BOB SOPCHICK and KEN HUNTER received awards from the Pennsylvania Outdoor Writers Association. For a painting of a pair of ring-necked pheasants that graced the cover of the October '97 *Game News*, Putt won the "Best Wildlife Art Award," and for an illustration of eight duck heads to accompany "The Naturalist's Eye" in the April '98 issue, he won the "Best Published Black and White Art Award." Hunter won the "Best Published Color Art Award" for a painting of a pair of bluebirds

done for the July '97 *Game News*. Bob Sopchick captured the "Best Magazine Column Award" for "Mountain Time," his September '98 "Penn's Woods Sketchbook."

The Pennsylvania Outdoor Writers Association is a professional organization of more than 200 writers, artists, photographers, broadcasters and others working in the outdoor communications field. The awards were presented at the association's spring meeting, held in Farmington, Fayette County, this past May.

Barn owl returned to the wild

A YEAR AGO, when Dawn Thorne turned on the exhaust fans in her 3-story chicken house, she had no idea a barn owl was nesting inside one of the fan housings. The owl was sucked



WCO Steve Hower

DAWN THORNE returns the barn owl to the chicken house, above, where it had been injured several months earlier. Barn owls are rare and secretive, but they do readily adapt to man-made boxes.

out through the rotating fan and suffered a broken wing. It was taken to the Red Creek Wildlife Rehabilitation Center, where center director Peggy Sue Heinz and veterinarian Dr. Lee



WCO Steve Hower

Simpson repaired the owl's wing. While the owl was recovering, a fledgling barn owl unable to feed itself was brought to the center, where the recuperating adult owl quickly began to care for it.

By November, both birds were ready to be returned to the wild. With the help of the Commonwealth Telephone Company, the owls were placed in a nesting box that had been placed on the chicken house. Whether the owls continue to use the box is unknown, but this project does demonstrate how many people, cooperating with one another, can make a difference for wildlife.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 570-398-4744

Southcentral — 814-643-1831

Northeast — 570-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of endangered species or multiple big game animals. All other calls should be made to the appropriate region number above.

In Memoriam

Raymond M. Sickles

Waterfowl Management

Coordinator

1914 – 1998

Bureau of Land Management

Retired, 42 years

Anna K. Adams

Cook

Training School

1904 – 1998

Retired, 24 years

Vernon L. Veronesi

1922 – 1999

Game Farm Superintendent

Southwest Game Farm

Bureau of Wildlife Management

Retired, 28 years

Merle E. George

1914 – 1999

Semi-Skilled Laborer

Northwest Region

Retired, 28 years

Chalmer F. Troxell

1913 – 1999

Semi-Skilled Laborer

Southcentral Region

Retired, 11 years

PAEE conference on tap

THE PENNSYLVANIA Alliance for Environmental Education (PAEE) is holding its annual conference at Split Rock Lodge in Lake Harmony in the Pocono Mountains, from Thursday, November 4 to Sunday, November 7. The theme for this year's conference is "On the Eve of a New Millennium."

Featured will be workshops, field

trips, displays and speakers. The conference is designed for educators, naturalists/teachers, environmentally concerned businesses, government officials and others in the environmental field. To register or for additional information, contact Carissa Reilly at 610-377-9150 or "Porcupine Pat" McKinney at 570-622-8878.

Antlerless license application schedule

Following is the schedule for obtaining 1999 antlerless deer licenses. Refer to the 1999-2000 *Digest* for complete application procedures.

- ◆ **County treasurers will begin accepting antlerless license applications by mail only from:**
 - ◆ Pennsylvania residents on Aug. 2
 - ◆ Nonresidents on Aug. 16
 - ◆ Surplus licenses on Aug. 23
- ◆ **Over-the-Counter**
 - ◆ Regular and Surplus licenses, Special Regs. Counties on Aug. 23
 - ◆ Regular and Surplus licenses statewide, where available, on Nov. 1
- ◆ Muzzleloader licenses available through Aug. 31.

Game Commission Sale Items

Books & Videos

Quantity		Price
_____	100 Years of Wildlife Conservation by Joe Kosack	\$12.26
_____	PA Wildlife, A Viewer's Guide by Kathy & Hal Korber	12.26
_____	Birds of Pennsylvania by James & Lillian Wakeley	12.26
_____	Mammals of Pennsylvania, by J. Kenneth Douth, et al.	9.43
_____	Pennsylvania Big Game Records, 1965-1986	9.43
_____	Gone for the Day by Ned Smith	5.66
_____	Endangered & Threatened Species of Pennsylvania	5.66
_____	Pennsylvania Game Cookbook	4.71
_____	Woodcrafting for Wildlife	5.66
_____	Woodlands & Wildlife	3.77
_____	Wetlands & Wildlife	3.77
_____	"Pennsylvania Elk: Reclaiming the Alleghenies" video	29.24
_____	"On the Trail of Pennsylvania's Black Bears" video	29.24
_____	"Pennsylvania Whitetails: Living With Change" video	29.24

Working Together for Wildlife Art Prints — \$125**

_____	1999 "Maternal Instincts" by Laura Mark-Finberg	
_____	1998 "Misty Morning Rendezvous" by Marie Girio Brummett	
_____	1997 "Gray Haven" by Laura Mark-Finberg	
_____	1996 "Peregrine Hideaway" by Stephen Leed	
_____	1993 "Bear Run" by Bob Sopchick	
_____	1992 "Spring Strut" by Taylor Oughton	
_____	1990 "Coming Home" by Gerald Putt	
_____	1988 "Snowy Egret" by John Pritko	
_____	1986 "Country Lane Kestrel" by Bob Sopchick	
	WTFW Patches	
_____	1999 Raccoon	\$4.71

WTFW patch display case

Holds 15 patches — \$125
plus \$15 s&h

Charts & Binders

_____	Set No. 1 (birds — 4 charts) 20" x 30"	\$9.43
_____	Set No. 2 (birds & mammals — 4 charts) 20"x 30"	9.43
_____	Set No. 3 (all 8 charts) 11" x 14"	7.54
_____	Game News Binders	5.66

Waterfowl Management Stamps & Prints (\$5.50 & \$135, write for additional details)

_____	1999 — Ring-necked Ducks by Clark Weaver
_____	1998 — Wood Ducks by Gerald Putt
_____	1997 — Hooded Mergansers by Clark Weaver
_____	1996 — Black Ducks by Gerald Putt
_____	1995 — Buffleheads by Mark Bray

SPORT Items

_____	SPORT Hat (one size fits all)	\$5.00*
_____	Turkey Alert Band	2.83
_____	SPORT Patch	.94
_____	Deer Weight Tape	.94

Miscellaneous Prints and Patches

_____	"Fall Birds" by Stephen Leed	\$125.00**
_____	"Spring Birds" by Stephen Leed	125.00**
_____	"We Need Wildlife" Cardinal (male)	4.71
_____	"We Need Wildlife" Cardinal (female)	4.71
_____	Pymatuning Wildlife Management Area	1.88

Mail orders along with remittance
(do not send cash) to:

PA Game Commission
Dept. MS
2001 Elmerton Ave.

Harrisburg, PA 17110-9797

Pennsylvania residents must add 6%
sales tax. Checks should be made
payable to Pennsylvania Game
Commission. U.S. currency only.

For faster service, call
1-888-888-3459. Visa and
MasterCard accepted.

* — nontaxable item

****Art Prints: Add \$97.50 for
framing; for s&h add \$15 for each
framed piece, \$7.50 for unframed
prints.**

Despite some of us seeing the outdoor world through rose-colored glasses, others literally see in different hues.

Colors of the Day

“WHAT’S WRONG with your eyes?”
I said.

My brother was making funny faces, stretching his jaw downward and lifting his eyebrows, which opened his blue eyes wide. This gave him an expression of surprise and dismay, which wasn’t only physical. It was how he felt.

Blinking, he turned to me.

Bob Steiner



“Can you see the shape the instructor’s talking about?” he asked.

“Sure,” I said. The on-screen color slide was a color-blindness test. The picture was of similarly colored bubbles, just different enough in hue that I could see the shape of a blocky animal, a bear, I think. “It’s right in the middle. It’s obvious.”

“Not to me,” he said. This time he tried squinting.

“If you can’t see the animal shape,” said the hunter education instructor, “you’re red-green color-blind.” My brother opened his eyes wide at me again. This was news to him.

Regular testing wasn’t done back then, and my brother had gotten through his young life assuming what he saw was what everyone saw. That day we learned differently. We also found out that he’s not totally red-green deficient. For instance, he can tell the “stop” from the “go” traffic lights, which is good because he grew up to be a police officer.

He’s also a hunter, and especially en-

BEING able to distinguish color is a necessity when trailing a wounded deer, but taken for granted by most hunters. Imagine the difficulty a color-blind hunter has in discerning blood on a red maple leaf.

joys archery. Our group has nicknamed him "Lucky Lenny," but skill and patience have mostly accounted for his hunting successes. His color-blindness hasn't kept him from seeing and getting game. But while helping him blood-trail a buck he'd hit, I realized that in some instances the inherited trait could be a hindrance.

Len met us at lunchtime, back at the car, as planned. We didn't get to linger over our sandwiches, though, because he announced, "I hit a buck, a good one. The hit looked like heart and lungs, but I lost the blood trail."

We grabbed our bows and our tracking equipment (a pair of binoculars and biodegradable tissues to mark the trail), and followed him to where he'd last seen blood. "It was a good trail to here," he said, bending close to the ground to look for more spoor. "Then it just stopped."

"But the blood goes right on," I said. On the warm-brown oak and maroon-red maple leaves, I could easily distinguish dime-size drops and smears of carmine. Len knelt beside me and peered. "I can't see it," he said. I pointed to a spot. He stretched his eyes wide open, just like that day in the hunter education class, then shook his head. It was the color blindness test, all over again.

"How did you follow the blood at all?" I asked. "I looked for the shiny wetness," he said. "That usually works fine for trailing." But the October day had turned August-hot and sunny, and the blood had dried quickly. No more shine to go by, just color. With a little help from several non-color-blind friends, we unraveled the blood trail and found the buck, dead, at the end of it. This happy conclusion to a hunt could have turned out badly, just because of genetics.

After he dragged the deer to the car and we were celebrating again with cans of soda, I put my hand up to my brother's shoulder. "A word of advice," I said. "When you go bowhunting, take someone with you who isn't color-blind. Or put someone on

call that you may need help trailing." He nodded; lesson learned.

Red-green color-blindness, like my brother's, is passed down in families, affecting males almost exclusively. It interferes little with most peoples' activities, except in rare instances, so most of us don't realize that friends or family members have the characteristic. Because color-blindness is something a person is born with, considers "normal" for himself, and can do nothing about, it doesn't tend to come up in conversation — usually.

A buddy and his family were driving the dirt roads with us in the Allegheny National Forest one day, looking for deer. During midsummer, the forest was in deep green leaf. "There's a deer," his daughter called. The car was stopped and backed slowly. Less than 20 yards off the road, a doe stood statue still, hiding from us by using the "frozen in place" strategy. She was bright russet amid the greenery and, to my eyes and to most of the others in the car, incongruous in color and instantly visible. "Where is she?" our buddy asked, turning his head this way and that. "Right there, Dad, don't you see her?" said his exasperated daughter. "She's right in front of us." Just then the doe flicked an ear at our noise or a bothersome gnat. "Oh, yeah, now I see her," said our friend.

Like my brother, my friend is color-blind. He, too, is an excellent hunter and, also like my brother, gets around his red-green vision limitations by judging brightness, shape, line and, especially, movement. When I considered how the doe looked in the summer forest, I realized that the red-brown deer and the deep green leaves had nearly the same tonal value. Neither was brighter and lighter or duller and dark than the other. The only difference was that one was green and one was red. No wonder this is a tricky situation for those who are color-blind.

As one who sees a dizzying range of color variations, or believes she does, I've sometimes wondered what sort of color percep-

tion my brother has. Seen through his eyes, what does the world look like? An online encyclopedia said that those with red-green color-blindness see in yellowish tints. Checking a little further on the Web, I learned that about 10 percent of men are red-green color blind, and one-half percent of women. Color-distortion severity varies between individuals and is due to a malfunction of the retina. Red-green color blindness is the most common, while blue color-blindness is rare, limiting the ability to distinguish yellow from blue. Total color-blindness, in which a person sees only black and white, is also very rare. I like the upbeat, and I'm sure true, note of one report: "Many (who are color-blind) even discover instances in which they can discern details and images that would escape normal-sighted persons." I think of my brother and my friend who, I believe, pick up contrasts and motion more quickly than I do.

Each of us thinks we see the world as it is, but this obviously isn't true. The glowing green of spring leaves, the yellow of autumn sassafras and red-purple tupelo, the orange of orioles, even the soft browns, grays and creams of a ruffed grouse in the hand — are they the same for me as they are for you? This is a question without an answer, as we are all fated to experience the outdoor view in our own way, according to our own gifts of perception.

Wildlife, too, sees color, or doesn't, in different ways, according to researchers. I've read that birds, like grouse and turkeys, see in full color, as do squirrels. Many other animals are said to have restricted or specialized color perception. Some, like pollinating insects, can see in the ultraviolet portion of the spectrum, to which we are oblivious. Whatever their color vision capacity, wild species manage to do well at avoiding predators and human hunters.

The variations in our own color-distinguishing skills, as well as game animals' color-vision abilities, create one more layer of interest and challenge to the hunt, and sometimes spur controversy. The best-sell-

ing camouflage materials mimic leaves and branches almost exactly, in form as well as color. But does their popularity reflect their ability to hide hunters from the roving eyes of game, or are we buying because these patterns can hide ourselves from ourselves? I tend to think the latter.

One hunting companion said he'd love to have a "camouflage" outfit made out of a material that was swirls of red, purple, yellow and black, just to prove a point. He said he'd bet that would work as well for archery deer hunting as anything. The tones would still be right to hide him from a color-deficient whitetail, and the pattern would break up his outline. Come to think of it, the red-and-black large-plaid of old-time hunting togs also worked as "camouflage," because of the patchy, dark/bright design.

Because fluorescent orange screams out to our human color perception, its effect on game remains controversial. We have trouble believing something so bright and garish to us doesn't alert wildlife, such as deer and turkeys. Yet most of us can tell tales of these animals passing almost within slapping distance while we wore blaze orange hats, vests or full outfits. I'm convinced that whether or not animals see the orange as we do, it doesn't mean the same. It's not an "orange-alert" beacon to them. Movement, though, gives us away nearly every time. We all have stories of how we were camouflaged from head to toe, and still the deer or turkey spotted us — when we moved — drawing the bow or shifting the shotgun.

I thoroughly enjoy the way I see the colors of the world, subtle and intense, and sometimes achingly beautiful. We all see the outdoors through different eyes, both figuratively, because of our mental outlook, knowledge and opinions, and physically, because of the way our eyes are constructed and function. We enjoy wild places in the ways we can, with whatever senses we can, as fully as we can. The colors of a day afield are uniquely our own. □

Behind the Badge

By Rick Larnerd

Bradford County WCO

"Never take a permanent action for a temporary situation."

Author Unknown



What's Up, Doc?

I WAS not prepared for the media onslaught when news of Dr. Shoe's arrest hit the street. After all, he was just protecting his family, wasn't he? I didn't think so.

Normally, June is relatively quiet. A few nuisance beaver calls or crop damage complaints trickle in, but the volume of work is not as great as in the fall. Littering viola-

tions occupy much of my time. June of '94, however, was different.

I had been away on vacation and returned to find several messages that would keep me busy throughout the dusty month. The first was a poaching case involving four individuals who had killed at least three deer at night. I told this story in a past "Looking Back" column. The second was

a case in which a bear was shot in self-defense. I can remember thinking that this is June for Pete's sake, what's going on here?

WCO Ed Gallew (retired) handled the initial call on the bear shooting. As if conducting a change of command ceremony, he handed over the information he'd collected so far. "Good luck on this one, rookie," was his parting remark.

It seemed as though a man had shot a bear in defense of his family, but a flag immediately went up, because there hasn't been an unmitigated





black bear attack anywhere in the eastern United States in more than a hundred years. Does that mean that an attack wasn't possible? Not hardly. Another flag went up, though, when I discovered that the person who had shot the bear didn't report the incident for several hours. It wasn't until he'd summoned his friends and neighbors, and took many photos of the slain bruin, that he reported the incident. Those aspects didn't mean Dr. Shoe wasn't going to be exonerated. They just meant that closer scrutiny was in order.

The Game and Wildlife Code is clear, crystal clear, when dealing with the destruction of wildlife in self defense. In part, the code states, "It is unlawful for a person to kill any game or wildlife as a means of protection unless it is clearly evident from all the facts that a human is endangered to a degree that the immediate destruction of the game or wildlife is necessary." I made immediate plans to visit the scene.

Dr. Shoe, a surgeon at a local hospital, lived at Ridgebury Lake. A scenic but rural community, Ridgebury Lake boasted of fine fishing and regular visits by wildlife of all descriptions. Even bears.

The Shoes weren't home when I arrived, but when I told the babysitter who I was and why I was there, she led me to where the shooting occurred.

It was hot. Hot and dry. Sweating profusely and swatting at the ever-present deer flies, I began my investigation.

Dr. Shoe's house sat some distance from the lake and private road that led to the other homes surrounding the body of water. The house sat atop a one car garage. A steep bank sloped away from the home in the rear. All of this was surrounded by dense woods. The spacious yard was well kept and allowed his young children to experience the great outdoors without straying too far from home. A back porch allowed access to the home without having to walk around to the front of the house. A spot of blood 15 feet from the entrance to the garage was where I focused my evidence gathering.

A few pieces of black hair and several more spots of blood led me along a sparse trail that ended at the base of a tree about 60 yards away. It was apparent that this was where the bear died. After drawing a diagram of the home and surrounding features, I left to interview Dr. Shoe.

I met him in his office. The doctor's wife was also there. They had a videotape showing the dead bear lying at the entrance of the garage. After viewing the tape, I asked Dr. Shoe to tell me what happened. In a soft spoken voice with a heavy Asian accent, he began.

He was working on a car in his garage. His wife and children were playing in the backyard. He could hear the occasional squeals of delight as they enjoyed the beautiful spring day.

At some point, he looked up and saw a bear walking along the edge of the woods. Having already passed the playing children, the bear stopped 40 yards from the house and looked for the source of the subtle noises coming from the garage. Dr. Shoe quickly got his rifle, a .30-06, from a gun cabinet and returned to find the bear only a few steps from the corner of his house. Loading one 150-grain cartridge Dr. Shoe shot the bear through the shoulders and then watched as it crashed off into the brush.

Thinking the car had exploded, Shoe's wife gathered up the children and herded them indoors. Thinking the worst, she screamed her husband's name. Dr. Shoe explained, matter-of-factly, that he had just shot a bear.

Thinking I'd missed the crucial part of his statement, I asked, "At what point did the bear attack your family?"

"It really didn't attack them," he replied. "I wanted to be sure it wouldn't, so I shot it."

I then asked if the bear had shown any signs of aggression. The doctor said that it didn't. I asked if he tried to alert his family that a bear was in the yard. He felt that his wife would panic and start screaming, so his first reaction was to kill the bear.

I was dumbfounded. This appeared to be an unjustified killing, and I felt that I was going to be prosecuting the doctor. I needed to interview a few more people, so I told Dr. Shoe that I would be back in touch with him.

I talked to the chief of Ridgebury Township Police, Marty Rinebold. He told me that he had been notified about the shooting several hours after it had occurred. He went to the scene and told Dr. Shoe that he needed to report the incident to the Game Commission. He also took possession of the bear, taking it to a butcher shop to be processed for consumption. Because it was hot, he felt the bruin would spoil if not properly taken care of. He was right.

When I learned that Doctor Shoe wanted to purchase the bear, I was convinced that his motive for killing it wasn't really to protect his family. In reviewing the facts, I knew that the bear wasn't acting aggressively. In fact, it had passed by the Shoe family before being spotted by Dr. Shoe, and he never tried to alert his family of the bear's presence. His opportunity to do so came when he went inside to retrieve his gun. He didn't even attempt to scare the bruin away. I made the decision to charge him under the Game and Wildlife Code.

Once he learned of my intent to prosecute, he took his plight to the media, and public outcry was instantaneous and constant. Contacting a local television station, Dr. Shoe broadcast his innocence to thousands.

The local newspapers had a field day with the incident as well. From the way they portrayed the events, it seemed the children were practically in the mouth of the ferocious bear.

When I learned that Doctor Shoe wanted to purchase the bear, I was convinced his motive for killing it wasn't really to protect his family.

Because I wasn't releasing any facts to the press, they gave a one-sided view that gave rise to the Dr. Shoe defense fund. I stuck to my guns because I knew many things that the public didn't.

It wasn't until the trial, which was well publicized, that I had my chance to explain the bear killing, and I took every advantage of it. I presented the facts to the court and sat back to await my chance to cross-examine Dr. Shoe. When that time came, I was ready. After the doctor had bragged about his keen marksmanship abilities under direct examination, I delved into that part of his testimony under cross-examination.

Doctor Shoe claimed to be able to hit a 50-cent piece on every shot with his rifle at 100 yards. Surely with that ability, at 15 yards, Dr. Shoe should have been able to shoot the bear in the eye, killing it instantly. Instead, he chose to shoot it in the shoulder, not immediately killing it. This caused extreme danger by presenting his family to the wrath of a wounded bear. Doctor Shoe said he felt the 150-grain bullet he was shooting would ricochet off the bear's skull. The judge, a hunter, rolled his eyes.

A photo of Dr. Shoe and the bear had been admitted into evidence. It showed Dr. Shoe standing with one foot on the slain bear's shoulder and holding his rifle propped up on his hip. The doctor was sporting a mile wide grin. It looked as

though he had just returned from a successful Canadian hunt. When asked about this, he replied sheepishly that his wife wanted him to smile for the camera.

When asked about his desire to purchase the bear, he replied that he always wanted a bear rug. Doctor Shoe's entire defense rested upon the fact the bear might have attacked his family, so he shot it.

In closing, I argued that we can't lead our lives by "what ifs." If a man walks into a convenience store, exercising his constitutional right to carry a firearm, do we have the right to shoot him because he might rob the place? Of course not. Nor can we shoot a bear because he may attack.

It didn't take long for District Justice Ayres to reach a decision. He summed it up by explaining to the throngs of observers who packed the courtroom that Dr. Shoe created an extremely dangerous situation when he wounded the bear. Because the bear had not been acting aggressively, because Dr. Shoe never tried to alert his family, and because he never tried to scare the bear away, Dr. Shoe was found guilty. He was sentenced to pay an \$800 fine and received a revocation of his hunting and trapping privileges for five years. Doctor Shoe appealed the decision but met with the same fate in the Bradford County court.

It was gratifying for me that once my side of the story was reported, public opinion turned and came to fully support my efforts to protect our wildlife resources. □

COVER PAINTING BY NED DuBECK

ONE OF our easiest and quickest animals to identify, the porcupine — depicted on this month's cover — is most common in northern and mountainous parts of Pennsylvania. They're fascinating to watch — from a distance — but can be a nuisance for dog owners, and people with cabins in the Big Woods. Because of their intense craving for salt, they often damage cabins by gnawing on doors and siding in search of this nutrient. Along with mice, they'll also gnaw on shed deer antlers. The porcupine's chief natural enemy — besides man — is the fisher, which has mastered the skills needed to effectively prey on porkies without getting a face full of quills.

Just like the rabbit in Aesop's Fable, Marcia says to throw her into the old brier patch anytime — as long as she has a pail and the berries are ripe.

In the Blackberry Patch

THIS IS the time of year when I have to convince people that I'm not a victim of domestic abuse. Scratches cover my hands, arms, legs and face. Picking blackberries, I tell them, is not a task for wimps.

Day after day I sally forth in the heat and humidity, dressed in special designer blackberry picking duds — threadbare, pale green, cotton pants, a berry-stained Earth Day 1990 T-shirt, an old long-sleeved, white blouse ripped in several places that serves as a jacket, and a red and white cotton hat to keep the buzzing insects at bay. But the killer thorns quickly penetrate my thin defenses, poking through my clothes and ripping my hat off my head.

My blackberry patch is a 100-acre, 7-year-old clearcut we bought after the loggers had stripped the mountainside property of every marketable tree. Almost immediately, Pennsylvania smartweed and blackberry shrubs sprang from the depleted soil. During the summers of 1996 and '97 I picked several quarts of blackberries, but last summer was a banner year, and I picked for almost a month.

Because the best canes drooped over the logging roads we've kept open for walking,

my husband does not cut what we now call Greenbrier and Ten Springs trails until after blackberry season. So I wore my tough, high-topped, Gore-Tex lined, leather hiking boots as I pushed through waist high grasses and thick beds of hay-scented ferns.

I was out as early as possible, because the slope faces the rising sun. In previous summers the exposed land baked in the



heat, but by last summer, striped maple and black locust saplings had grown tall enough to cast welcome shade on the trails.

Knowing my propensity for picking a patch clean, I took along only a 2½-quart pail. When it was filled, I would quit for the day. In addition to wading through thick underbrush and stumbling over hidden logs, I also had to clamber up and down steep slopes, and I often wondered as I looked at my bleeding hands, why, at my age, I persisted in picking no matter what the weather. All that bending and stretching was good exercise I told myself.

One day the fog was so thick that I could barely see 20 feet ahead of me. Every leaf and twig was beaded with moisture. As I tried to pick berries, my glasses fogged over from the humidity, reminding me of the time I had spent in a Peruvian rainforest. At that time, trying to look at birds through my binoculars with my steamed up glasses was frustrating. On this rainforest like day, I couldn't see the berries.

I could still use my ears, though, and at one blackberry tangle I listened to a flurry of northern cardinals, black-capped chickadees, tufted titmice, eastern towhees and red-eyed vireos calling and singing. A ruby-throated hummingbird buzzed around my red hat. Deer bounded away in the underbrush.

But on some days the weather was spectacular, and there was no other place on earth I wanted to be than the berry patch.

One such morning was the last day of July. It was 64 degrees at dawn and clear and breezy. Instead of following the trails, I chose to explore areas I had not investi-

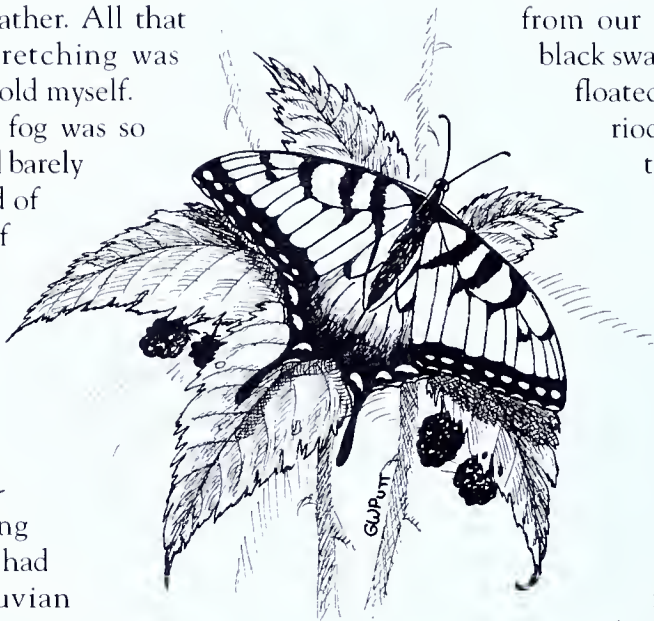
gated earlier. So lush was the undergrowth that I had a difficult time finding the remnants of an old logging road we have not kept open. The green of summer covers so many human inflicted scars on the land that are starkly visible in winter.

Trains whistled in the distance, but otherwise I heard only the sound of wind in the trees and occasional birdsong and calls. I could have been miles deep in the wilderness, but I was only a mile and a half from town and a quarter-mile from our home. Tiger and black swallowtail butterflies floated serenely past. Periodical cicadas began to buzz as it warmed up.

I shared the berries with scolding eastern towhees, indigo buntings, American robins and northern cardinals. Ruffed grouse detonated from the brier patches. I also heard or saw red-eyed

vireos, tufted titmice, song sparrows, northern flickers and cedar waxwings, all of which are known berry eaters. In fact, Alexander Martin, Herbert Zim and Arnold Nelson in their book, *American Wildlife & Plants: A Guide to Wildlife Food Habits*, claim that at least 97 bird species eat blackberries. So, too, do raccoons, chipmunks, squirrels and mice. Furthermore, they point out that these same birds and mammals use blackberry shrubs as security cover and many songbirds build nests in them. I've found gray catbird and indigo bunting nests among the brambles.

Insects and arachnids are also enthusiastic consumers of blackberries, and I frequently brushed off spiders, shield bugs and daddy longlegs from the berries before put-



ting them into my pail. Many of the canes had been stripped of leaves, thorns and berries by deer. Discrete piles of scat were evidence that black bears and foxes were also enjoying the bounty. Even the occasional box turtle waited patiently for blackberries that dropped to the ground. "Blackberries," Martin, Zim and Nelson sum up, "rank at the very top of summer foods for wildlife."

What species of blackberry was I picking? Some were larger and juicier than others, and many canes produced berries with subtle taste differences. Yet all had those killer thorns. That eliminated the mountain or thornless blackberry (*Rubus canadensis*), which grows in woodlands and thickets throughout the mountains of Pennsylvania. Instead, we probably have highbush blackberry (*Rubus allegheniensis*) or Allegheny blackberry, a species first described by Dr. Thomas C. Porter who found it growing near Pocono Summit in Monroe County.

The most common and widely distributed blackberry species in Pennsylvania, it has erect or arching, purplish-red canes three to six feet high, covered with stout, straight, broad-based thorns. Even its palmate-shape leaves have prickles along the mid-vein. The berries are thimble shape (hence the nickname thimble berries), juicy and up to an inch in length.

On the other hand, William Carey Grimm writes in *The Book of Shrubs*, "The genus *Rubus* is a very large and extremely complicated one . . . it has never been definitely ascertained how many species occur in Pennsylvania; or . . . in any other part of the New World."

In 1950 Gray's *New Manual of Botany* listed 205 species, up from 38 in 1908. Liberty Hyde Bailey in *Gentes Herbarium* listed

as many as 390 species. This genus also includes raspberries, but Grimm says most of the "confusion as to names and species is limited to blackberries which . . . seem to have run rampant since the clearing away of the forests, cross breeding indiscriminately and exhibiting all sorts of new characteristics." So perhaps the blackberries on my 100-acre clearcut are more than one species.

The most common and widely distributed blackberry species in Pennsylvania is the highbush blackberry (Rubus allegheniensis).

During my many hours in the blackberry patch, I made a few new discoveries and had several close encounters with wildlife. One day I found a beautiful stand of Allegheny vine (*Adlumia fungosa*) draped over black locust trees. Also known as "climbing fumitory" or "mountain fringe," it has pink or white flowers shaped like those of wild bleeding heart.

Both species are in the poppy family, along with the similar looking pale corydalis. The feathery leaves of Allegheny vine are reminiscent of maidenhair fern leaves. Partial to wooded slopes, the vine twines for many feet over shrubs, old fences and small trees.

Birds that are not berry eaters often serenaded my picking. When I walked the Ten Springs Trail the calls of Acadian flycatchers drifted up from the uncut forest below. Along Greenbrier Trail the songs of yellow-billed cuckoos persisted. They, however, were more interested in eating the webworms that were devouring the small black cherry trees. A wild turkey flock, immature birds and adults, scuttled off into the oak forest. And when, after filling my pot, I moved beneath a bower of striped maple and witch hazel saplings to rest, I scared away small, spotted twin fawns that had been bedded down.

Slowly, but steadily, my freezer filled up with blackberries, and we ate our way through bowls of fresh blackberries, black-

berry cobbler and blackberry crumb pie. But as I continued blackberry picking into August, berries and birdsong dwindled. On August 6, I heard only a chestnut-sided warbler, northern flicker and eastern towhees along Greenbrier Trail. Five days later a black-billed cuckoo called from Sapsucker Ridge as I headed across First Field in the hazy sunlight. Already the field was yellow with goldenrod, and the feel of autumn was in the air.

In the berry patch along Ten Springs Trail, only a ragtag of birds still vocalized. A yellow-billed cuckoo called *cowp, cowp, cowp*, a gray catbird scolded and a downy woodpecker quietly tapped. From the woods below came the lazy sounding *pee-a-wee* of the eastern wood pewee. It was a quiet morning.

Then suddenly a frenzy of insect-feeding birds appeared, heralded by black-capped chickadees and tufted titmice. They filled the saplings and underbrush. I noticed two

black-and-white warblers, a couple ruby-throated hummingbirds, a female American redstart and an ovenbird. I heard a black-throated blue warbler, Carolina wren, Acadian flycatcher and scarlet tanager. There were many more flitting birds impossible to identify without my binoculars, which I had not been carrying because of their weight and the possibility of scratching the lenses. But there was no doubt that I was witnessing the first major migratory movement, led by the locals — a dozen chickadees and several titmice — that knew the food sources.

To me they signaled the end of blackberry picking time. So did my half-filled pot. But in winter, long after my scratches have healed, I'll remember with longing the many sun-filled mornings I spent enveloped by the lush green of summer and serenaded and scolded by birds, while I filled both my pail and my stomach with summer's bounty. □

Fun Games — By Connie Mertz

Woodcock Wonder

Unscramble the underlined words in each sentence, then copy the capital letter(s) in the unscrambled word to discover another name for the woodcock.

The American woodcock is a DoshBirr _____ found near yaMhsr _____ thickets. Their favorite food are mroTswErah _____, and by using their upper LamDibnE _____, they can locate them three inches below the surface. The pitshOucR _____ display of the male includes an amazing glfth _____ and gOns _____.

answers on p. 64

Want to sharpen your shooting and hunting skills during the summer, so you'll be ready for whitetails in the fall? Then take . . .

The Groundhog Challenge

MY SIGHT pin was held steady behind its shoulder. Suddenly it turned and looked right at me. I froze. Seconds seemed like hours before its head turned away. I released and watched as the arrow passed just to the left of the mark, slamming into the ground with a sickening crack. The groundhog turned and dashed for its burrow, sliding headfirst into the hole. Slowly, I walked to where my arrow lay, knowing what I would find but hoping I was wrong.

The arrow — one of my better ones — was split along its length. I turned and glanced at the mound of dirt surrounding the entrance to the den just in time to see the chuck pop up. Only its nose and eyes were visible, but somehow I knew the chuck was laughing at me. It was the fifth time I had missed that groundhog in the past month. I knew it would be out again in 20 to 30 minutes, but I had taken my

shot at him for the day. He would be safe until I returned to try again.

I was shooting instinctively, using a wooden recurve and wooden arrows. My broadheads had single blades that I sharpened with a file. The year was 1956, I was 17 years old and it was my second year of bowhunting. There were no archery shops, no hunting videos or 3-D ranges, and I didn't know any bowhunters who could give me advice. The only way to learn about bowhunting was to teach oneself, and that meant learning from mistakes. I

John Eicher



DON'T UNDERESTIMATE the challenge of hunting groundhogs with a bow. While they may not have the keen sense of smell of the whitetail, their hearing and eyesight are sharp, and they are constantly on alert for danger.

wanted to get a buck with a bow, so I used every opportunity to improve my skills. Hunting groundhogs seemed ideally suited for gaining experience. It allowed me to sharpen both my shooting and hunting skills under actual hunting conditions. It worked for me then and it can work for you now.

Don't underestimate the challenge of hunting groundhogs with a bow. While

of filling your deer tag will increase dramatically.

Another nice aspect to groundhog hunting is that they're so abundant. In fact, for some people they are on the dangerous pest list. Few farmers have any love for the burrowing critters because their dens can damage farm machinery and prove dangerous to livestock. Despite many farmers' desire to eliminate groundhogs, many are

reluctant to open up their farms to hunters using rifles. Bowhunting, though, is another story. The major objection you may find is a landowner's concern about livestock safety and lost arrows. Many farmers are concerned that lost arrows could cause tire damage on machinery or wind up in hay or straw, presenting a serious risk to livestock. When hunting groundhogs with a bow, the only realistic shots are those taken within normal bow ranges —15 to a maximum of 30 yards. At these ranges, safety should be assured, and the chance of losing an arrow is minimal.

Generally, the same rules of safety that apply to hunting with a firearm apply to bowhunting as well. Always make sure you have a safe backstop before shooting. Arrows have a tendency to sneak under the grass when shot on level ground. Plan your shots so the arrow will enter the ground at a sharp angle. The angle will minimize the chances of an arrow burying itself, making recovery easy. Assuring the landowner that you understand his concerns, and explaining your shooting strategy in advance will normally allow you access to the

property.

With some slight modifications, I use the same equipment for groundhogs that I use for whitetails. Although I carry my arrows in a bow quiver when hunting deer, I remove it when I'm on stand. To simulate those same conditions when hunting groundhogs, I normally use a hip quiver.



GOING AFTER groundhogs during the summer allows hunters to sharpen both shooting and hunting skills under actual hunting conditions.

they may not have the keen sense of smell of a whitetail, their hearing and eyesight are sharp, and they are constantly on the alert for danger. At 20 to 30 yards, they present a small target, and being able to draw the bow without being spotted can be difficult. If you can consistently take groundhogs with your bow, your chances

This gives my bow the same balance when shooting at groundhogs or deer and makes stalking groundhogs easier. Of course, if you leave your bow quiver on when hunting deer, do the same for groundhogs.

The only other modification that may be necessary is the type of broadhead you use. The ideal situation is to use the same type for deer and groundhogs. I always have several hunting heads set aside for sighting-in purposes. After resharpening the blades with a flat stone or small knife sharpener, I use these heads for groundhog hunting. For deer hunting, I install new blades at the beginning of each season and replace any blades that have been shot. It doesn't take long to build up a good supply of reusable blades that with a little touchup are more than adequate for hog hunting. The only fly in the ointment is if you happen to be using retractable heads. Although some mechanical models are tough, most will not withstand too many shots into hard ground before the blades are twisted or the head is broken. While most retractable heads are excellent for one shot, few will stand up to the rigors of hunting groundhogs, not to mention their high cost. Unless the area you're hunting has both an ATM machine and an archery shop, I suggest changing to fixed-blade heads for groundhog hunting.

With a well-tuned bow, the changing of heads should present no real problem other than a slight sight adjustment. (Although retractable broadheads can produce improved arrow flight, they often disguise serious tuning problems. Any properly tuned hunting bow matched with the proper arrow should produce acceptable arrow flight with any of today's high quality fixed-blade broadheads. If for any reason you are unable to do this, recheck the set up of the bow.)

As far as arrows are concerned, I set aside several of my hunting shafts and use them strictly for hunting groundhogs. I know they will get some abuse, but with a little thought before each shot, any of

today's shafts are strong enough to hold up. While I do not hesitate to take a shot at any whistle pig in a field, I readily admit defeat when one pops its head out of a den located in a rock pile. This is a case of discretion being the better part of valor.

The techniques for hunting groundhogs are similar to those required for hunting whitetails. First is scouting. While groundhogs can be found in almost any terrain, they are usually found in abundance in farm country. They love to locate their dens along the edges of fields in fencerows or the edges of woodlots. Walk the area and look for active dens. These can be identified by signs of activity around the entrance, as well as trails leading to the field. Another popular scouting technique is to select a vantage point from where you can view a large area. Using binoculars or a spotting scope, pinpoint groundhog activity and scout those areas for possible den locations.

As with deer, groundhogs can be hunted from a stand or stalked. When selecting a stand, a common mistake made by most beginning hunters is to set up too close to the den entrance. This presents two basic problems. First, a groundhog exiting its den is extremely alert for any danger and often sticks out only its head. This presents a small target under less than ideal conditions. Second, any groundhog hit at its den entrance is likely to escape down the hole where it can't be recovered. Neither of these conditions is acceptable.

Select a stand for groundhogs as you would a deer stand. While treestands are certainly not necessary, I know of several bowhunters who use them because it best simulates the typical whitetail hunting shot. However, if treestands seem too much for groundhog hunting, then select a suitable ground location. In either event, place your stand between the den and the food source. The best site selections are normally right along the edge of the field, 20 to 30 yards from where the groundhog enters the field. These locations are normally

quite obvious, because the groundhog is an animal of habit and often uses the same path to and from its feeding location. Remember that the groundhog may not smell you, but it will see or hear you if you're careless. Stay to one side of the trail, keeping adequate cover between you and the spot where you expect it to appear. Cover is necessary to conceal movement when drawing the bow. Getting off a shot while hunting on the ground at 20 yards or less from an alert groundhog is much more difficult than you may think. While bowhunters normally rely on camouflage, the law specifies that woodchuck hunters wear a solid fluorescent orange cap on the head that is visible for 360 degrees.

While stand hunting can be productive, I prefer to mix it up with stalking. After a series of dens has been located, I often sneak slowly along the edge of cover, glassing the area for activity. Knowing the locations of the dens helps me focus on the areas that offer the best opportunity. When I spot a feeding chuck, I use the available cover along the edge of the field to hide my stalk. I also take advantage of the groundhog's tendency to stand and check the surrounding area for danger. When I notice a groundhog in the standing or alert position, I freeze. As soon as it drops back down, I make a series of short, quick movements to get within shooting range and then freeze again. I remain stationary until the hog stands, but as soon as it drops down I move again, repeating this procedure until I get within shooting distance.

Whether stalking or stand hunting, I time my shot with the groundhog's movement. I've found it best to draw when the hog is on all fours then shoot when it's standing. This can be tricky if your timing is off. Draw too early and you'll find yourself at full draw, waiting for the groundhog to make the next move. Draw too late and



COVER is necessary to conceal movements when drawing the bow. Getting off a shot while hunting on the ground at 20 yards or less from an alert groundhog is difficult.

chances are it'll pop up, catch you in mid-draw and be heading for its den before you can get off a shot.

Although hunting groundhogs and deer are similar in many ways, there's one big difference. A deer will seldom stand around to give you a second shot, but being chased into its den, a groundhog will often reappear within 15 to 20 minutes, giving you another opportunity. While there is nothing wrong with trying again, I limit myself to one shot per day per groundhog. If I miss, I simply move on to my next hunting site.

There's no easier or better way for a new bowhunter to develop his hunting skills, or for an experienced bowhunter to keep skills sharp, than to spend a summer day hunting groundhogs.

Despite many opportunities during that long ago summer back in 1956, I managed to take only one groundhog with my bow. But I'm sure the experience played a major role in the 5-point buck I took that fall. While it was the first of more than 75 deer taken with a bow, I somehow feel it all started with that first groundhog. □

The 19-caliber offers bullets with high sectional densities, ballistic coefficients comparable to 22 calibers, and velocities similar to the .220 Swift but with low recoil and longer barrel life. What else can the varmint hunter ask for?

The 19-Caliber

DURING THE EARLY years of gun making, gunsmiths worked with many calibers. I won't attempt to name them all, but .14, .17, .19, .20, .22, .23, .24, .27, .28, .30, .32, .35 and .44 are some that come to mind. Undoubtedly, there were other borings that didn't catch on. When the dust finally settled in the rifle realm, manufacturers reduced the list to .17, .224, .243 (6mm), .257, .284, .308, .323, .357 and .444. Now and then, though, there has been a feeble attempt to reintroduce one of the discarded calibers.

When Remington brought out its 5mm rimfire, which is a 20-caliber, it's safe to say it was a better rimfire cartridge than the Winchester .22 Magnum. Maybe it was the tiny bottlenecked case that appealed to me. There were no significant differences between the Remington 5mm Magnum and the Winchester .22 Magnum, except in caliber size. It might be worth noting that the 5mm Remington had a published 2,100 fps muzzle velocity compared to 2,000 fps for the Winchester.

Shrinking the bore diameter not only creates problems for barrel makers, but case manufacturers and bullet makers are faced with a variety of technical obstacles as well.

Discussing these in detail will be saved for a future column. But it might be interesting to take a quick look at barrel making.

The first rifles (muskets) were smooth-bores, and accuracy was poor. Rifle makers soon realized that bullet stabilization was needed. Some barrel maker probably got the idea for rifling from watching an arrow rotate in flight. At first, however, lands and grooves (rifling) did not spiral, but were cut straight through the bore. The straight rifling aided more in cleaning than in bullet stabilization. In time, a twist of about 1 turn in 49 inches was considered appropriate. The modern bullet, which is fairly long for its diameter, needs a quick turn, but the round lead ball does not require a fast twist.

Cutting spiral rifling more than 200 years ago was not as easy as it sounds. The gunsmith would pull a long hickory rod with a cutting head on it through the barrel. The rod slid through a jig to make the proper twist. When the cutting head would not cut any deeper, the gunsmith would start another groove. He would keep this up until he had all the grooves cut to the depth of the cutter. He would then place a piece of wheat straw under the cutter, to raise it, and start all over again. This would

be continued until all the grooves were cut to the proper depth. Rifling a barrel took several days and would require thousands of steps to push the rod through the barrel then walking backwards, pulling it back through. A blackpowder historian told me that a shop owned by William

17-223 Ultra Wildcat. The case was made by necking down a .223 to accept a 17-caliber bullet. With a 25-grain bullet, it generated muzzle velocities over 3,500 fps. It was deadly on woodchucks, crows and foxes at long ranges, but it was susceptible to wind.



THE .19 CALHORN, left, is based on a necked-down .22 Hornet case, and the .19-223 Calhorn, right, is a necked-down .223.

Schreckengost of Putneyville had evidence of several floors being laid in front of where the barrel rifling jig was set up because of the wear.

Early on, the exact caliber of the muzzleloading rifle was not too important. The gunsmith would simply cut a bullet mold the same size as the bore. When a bore became pitted, it was cut to a larger caliber and a new mold made. Apparently, this could be done several times.

Today, when a carbide button is used to cut rifling, it takes only a minute or so to pull it through the barrel. Unlike a cutter that scraped out metal to make a groove, the carbide button displaces metal. What is a land on the button becomes a groove in the barrel, and a groove on the button makes the land in the bore. This can be such a delicate procedure that some barrel makers will not even discuss how they do it.

As I mentioned earlier, many bore sizes have been tried, but diameters below .224 never became popular. The 12-caliber is probably the smallest bore diameter to receive military consideration, but I have not seen published data on it.

H & R offered a rifle chambered for the

created another. The latter used bullet weights running from 15 to 20 grains. The book shows that a 15-grain bullet attained a muzzle velocity of 4,215 fps. Even a 20-grain bullet could be pushed above 3,600 fps.

When hunters and shooters are getting top results from existing proven calibers, why is there a need for a 19-caliber? According to James Calhorn, of Harve, Montana, maker of 19-caliber conversion kits, there is more to the 19-caliber than meets the eye. He says in his brochure, "In the early 1970s, when the NATO countries were holding field trials for a superior infantry round, of all the calibers that were tested to the 400 meter range (.14, .17, .19, .22, .27, .30) the entry that won was the 4.95mm Experimental. This round is a .223 case using a 19-caliber bullet. It lost out to the .223 only because the military prefers a compact, jointed cleaning rod." He goes on to say that most hunters and shooters now prefer a one-piece rod, and he claims that makes the 19-caliber a winner.

Calhorn is now offering two 19-caliber chamberings. The .19 Calhorn is based on a necked-down .22 Hornet case, and the .19-223 Calhorn is a necked down .223

Several 14-caliber cartridges saw the light of day, but I've never used one. In P. O. Ackley's book, *Handbook for Shooters & Reloaders, Vol. II*, he mentions several 14-calibers. Necking down a rimfire .22 Long Rifle case made one. Necking down the Remington .221

case. Calhoon says that the .19 Calhoon has muzzle velocities around 3,500 fps with a 27-grain bullet, and 3,200 fps with a 32-grain bullet. The .19-223 will push a 32-grain bullet at muzzle velocities above 4,000 fps, and a 40-grain bullet at more than 3,600 fps. I don't have velocity figures for the 44-grain bullet.

One of the advantages offered by the .19 Calhoon is a wide array of bullet weights. Hornet fans have been pretty much limited to three bullet weights — 40, 45 and 50. Older Hornets, with a 1 turn in 16 inches, produced the best results with the 40- and 45-grain slugs. Newer Hornets, with 1 turn in 14 inches, can handle both the 50- and 55-grain bullets, but weights above 50 grains are too heavy for the tiny case.

Calhoon mentions that the 19-caliber offers high sectional densities, ballistic coefficients comparable to 22 calibers, and velocities similar to the .220 Swift, but with low recoil and longer barrel life. He also says that the .19-223 and .19 Calhoon barrels are special. The rifling on the Calhoon 19 calibers is 50 percent thicker than that of the 17-caliber and the long dormant 20-caliber (5mm). Thicker rifling (similar to .22 and 6mm caliber rifling) results in less cleaning and longer barrel life.

The ultimate question is whether the 19-caliber offers anything for the varmint hunter. I'm still waiting for a .19-223 Calhoon kit that will be installed on a Remington Model 700 that is chambered for the Remington .223. Gunsmith Jim Peightal will thread the factory chambered barrel and headspace it. The kit includes reloading dies to neck down .223 brass to accept the 19-caliber bullet, and reloading data comes with each kit. I might point out that the .19 Calhoon kit has the same set up as the .19-223, except it's for the .22 Hornet case.

Getting back to the question of whether these two 19-caliber cartridges offer anything for the varmint hunter can be answered by pointing out that the 19-caliber has its own wide selection of bullet weights. Muzzle velocity for the .19-223 with the 32-grain bullet is almost on par with the .220 Swift. This type of speed with a lightweight bullet makes a deadly combination.

It seems the .22 Hornet fans will really be excited about the .19 Calhoon. The old Hornet is a bit slow for long range varmint hunting. Basically, with a 45-grain bullet, muzzle velocities are around 2,650 fps. Cartridges with muzzle velocities much below 3,000 fps can't be considered long range varmint cartridges. Converting the .22 Hornet to the .19 Calhoon puts a different perspective on the tiny case. Although Calhoon reports muzzle velocities in the 3,500 fps range with 27-grain Calhoon bullets, I have a suspicion the varmint hunter will be better off with the 32-grain Calhoon bullet that generates muzzle velocities up to 3,300 fps. Even the 36-grain bullet offers muzzle velocities comparable to the .222 Remington.

Another drawback with the .22 Hornet is its lack of accuracy. It's true that 100-yard accuracy in the 1½-inch category is adequate for varmint shooting up to 200 yards. It's woefully inadequate, though, for small targets much beyond that range. If the .19 Calhoon's accuracy potential is well below 1½ inches at velocities in the .222 Remington's range, Hornet fans have nothing to lose by changing calibers. Calhoon says the .19-223 can be built on any 3/8-inch bolt face action — .17, .221, .222, .223, and a Hornet action should be used for the .19 Calhoon.

Calhoon claims accuracy is superb with both chamberings. I'll have more on this and ballistic data after my rifle is assembled. I'll let you know how it turns out. □

In the Wind

By Bob D'Angelo

The Northeast has regained 23 million acres of forest since the turn of the century, according to a federal study. The 10 states showing dramatic increases are Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont. By 1908, Pennsylvania's forest cover was reduced from 95 percent of the land to about 30 percent.

Pennsylvania has the most hunters in the nation, with license sales at more than one million in 1997. Other states in the top five include: Michigan, 952,564; Texas, 942,350; Wisconsin, 739,345; and New York, 709,054.

Got sprayed by a skunk? Here's an alternative to the tomato juice remedy: Mix two quarts of hydrogen peroxide with one cup of baking soda. Add one tablespoon of dish soap then sponge mixture on the affected area, rinse thoroughly and let air dry.

There's a movement to establish a mourning dove season in Iowa, one of only 11 states in the country that does not allow dove hunting. Iowa has three times as many mourning doves as pheasants.

Of the 165 permit holders for Vermont's 4-day moose season, 97 were successful. Vermont's moose population is estimated at more than 2,000.

The North American mourning dove population is estimated to be 475 million — 271 million birds (57 percent) inhabit the Midwest.

Past statewide annual pheasant harvests in North Dakota were: 1997, 136,000; 1996, 311,000; 1995, 286,000; 1994, 260,000; 1993, 246,000; and 1992, 315,000.

Between 1991 and 1996, the number of woman hunters rose from 1.1 million to 1.2 million. During the same 5-year span, however, the number of male hunters dropped from 13 million to 12.8 million.

A recent survey found that 37 percent of the 2,300 hunters who hunt from treestands had fallen out of them. Nearly 80 percent were not wearing a safety belt, and 70 respondents suffered permanent crippling injury.

The mourning dove is the leading gamebird in North America in terms of harvest. An estimated 41 million birds (10 percent of the population) are taken annually in the U.S.

Answers: shorebird, marshy, earthworms, mandible, courtship, flight, song.

Timberdoodle.

WORKING TOGETHER FOR WILDLIFE

MATERNAL INSTINCTS, by Laura Mark-Finberg, is this year's Working Together for Wildlife fine art print. The raccoon's inquisitive nature, along with its bandit mask and ringed tail, make this a most popular and well known wild animal among young and old alike.

PRINTS are on acid-free, 100 percent rag paper; image is 15 x 22½ inches. Cost is \$125, plus \$7.50 s&h (for framing add \$97.50, plus \$15 s&h). Embroidered, 4-inch patches are \$4.71.



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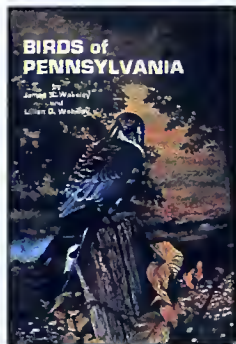
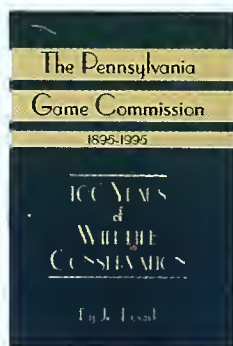
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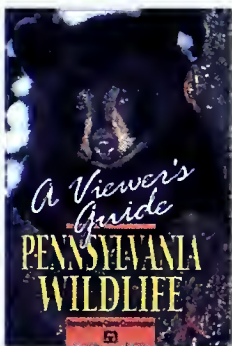
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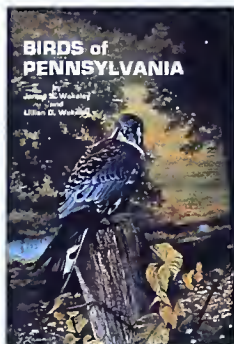
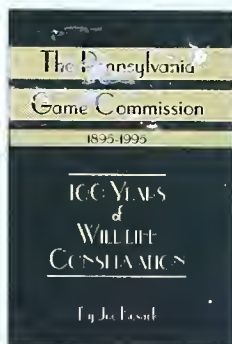
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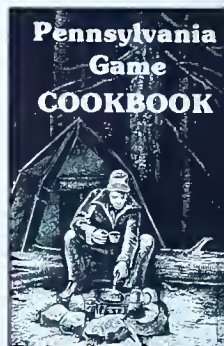


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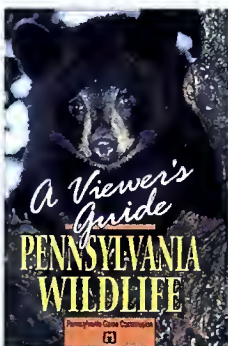
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Good Hunting

AUGUST IS HARDLY considered “deer” month, yet a lot of what we do now will determine what kind of season we have this fall. First, now is the time to apply for antlerless deer licenses. County treasurers will begin accepting applications, in the mail, from Pennsylvania residents starting August 2, and from nonresidents on August 16. This year’s allocation is the same as last year, so demand and availability should be pretty much the same. Last year, only four counties (Cameron, Carbon, Lackawanna and Monroe) had sold out by the time nonresidents could apply, and more than 470,000 licenses were still available. By the time surplus licenses could be applied for last year, more than 60,000 were available, and Somerset was the only county where surplus licenses were authorized but had sold out. Don’t forget: antlerless licenses cost \$6 for residents and \$26 for nonresidents.

Surplus licenses go on sale August 23. Again like last year, surplus licenses may be purchased only in the special regulations counties and Southwest Region counties where antlerless licenses are still available.

New this year is that flintlock hunters have until the end of August to buy a muzzleloader license, which cost \$11 for residents and \$21 for nonresidents, and don’t have to give up their antlerless license applications.

Complete application procedures are in the 1999-2000 Hunting and Trapping Digest. Now is also a good time to go over the deer hunting material in this year’s digest. First, note the special 4-page pull-out section in the middle of the digest. This has been designed to be taken from the digest, folded and placed in a hunting license holder. It includes a 1-page summary of seasons and bag limits, a table of shooting hours, and a state map delineating proposed deer management units. The fourth page has information about Lyme disease, an ailment that is becoming increasingly prevalent in Pennsylvania, but one for which a new vaccine is now available.

Also in the digest is a section “Deer Management and You.” These couple of pages address several important deer management issues and commonly asked questions, and it’s something every deer hunter should take the time to read. The proposed deer management units are explained, along with the pros and cons of having bigger and smaller units. Also covered is a brief discussion on how deer harvests and populations are determined, emphasizing the important role hunters play in this process. Covered last is the issue of mandatory check stations. Many people are under the impression that having mandatory check stations will eliminate all the questions and suspicions over deer management figures, but as is covered here, there are many aspects to the issue that make it far from the panacea many people think. Reading this section now may give you a better understanding of the importance of the antlerless deer season for managing Pennsylvania’s deer herd, the rationale behind many of our deer management policies, and the role each of us as hunters plays in this process.

This month, start thinking about deer season. Keep track of all the application dates and new license fees, so you’ll be ready to go once the seasons start this October. A little planning now can go a long way toward having the most enjoyable and fruitful deer hunting season imaginable. — *Bob Mitchell*

letters

Editor:

I enjoyed "The Naturalist's Eye" about flowering trees in the April issue. However, the author mentioned that the black locust is also called the honey locust. Actually, they are two separate species.

W.H. BERLIN,
BERLIN

Editor:

I'm a senior at Penn Manor High School in Millersville, and I'm concerned about more and more hunting grounds being destroyed. I live in a rural area with farms all around, but I see so many strip malls and parking lots being built only to close down a few years later. When I get older and start a family, I hope to take my children hunting like my father did with me. I don't want to have to say, "Back in my day . . ." to them. I would like to see more done to preserve farmland.

J. NEWSWANGER,
WASHINGTON BORO

Editor:

I strongly suggest that the Game Commission add the option of license buyers donating \$1 for the purchase of recreational land. This may be the only way our children will have reasonable access to hunt and fish. Most of my boyhood hunting areas are now posted or developed.

R. MCCONNELL,
ALTOONA

Editor:

I noticed in your May issue that dog training is

allowed year-round. I think it should be closed in May and June, to give young animals a chance to grow.

R. KIRKPATRICK,
NIAGARA FALLS, NY

Editor:

I don't think it's right to hunt woodchucks in May, when many young might still be in their dens.

R. GOLICK,
LOWER BURRELL

Editor:

If Sunday hunting is ever allowed, my husband and I will take our land out of the cooperative public access program. I believe wildlife deserves one day free from the stress of hunting.

L. DEETS,
TITUSVILLE

Editor:

I just finished Tom Mitchell's article about hunting with a flintlock. I've admired Pennsylvania for sticking to the flintlock requirement, keeping the primitive aspects alive.

C. NICHOLSON,
O FALLON, MO

Editor:

Just read "A Special Gift," in the March issue, and I had a similar story with my two golden retrievers. A week before my first child was born, my dogs and I were walking a fencerow when the oldest dog picked up scent. Within a few minutes, both

dogs rushed in and flushed a rooster. This is not something we see very often in the spring, and it gave me hope that the Game Commission's pheasant program is working. I sure hope that my new child will one day experience the beautiful sight of a rooster taking flight.

C. LYNN, JR.
DANVILLE

Editor:

Time to renew my annual subscription. Really enjoy hearing from my "home state." The articles in *Game News* are so well written that I can almost smell the fragrance of deer fern and hear the frothing warblers of the PA streams all the way out here in Oklahoma.

D. WALL,
TULSA, OK

Editor:

I'm writing just to express my gratitude for the incredible work done by the Game Commission. Although I don't hunt myself, I come from a family of hunters, and I've taken a hunter safety course. I also recognize the need to control animal populations.

I am particularly interested in the elk trap and transfer project. I think it's great that the Game Commission is attempting to bring these animals back.

B. BLACKMAN,
SILVER LAKE

**Your comments are welcome. Mail them to "Letters,"
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Letters will be edited for brevity and clarity.**



Tip's Last Bunny

By Joe Parry

WHEN A HUNTER'S cup of happiness runs over, you can almost bet there's a tremendous love in his life in the form of a dog. And the worst way on God's sometimes cruel planet to all but drain that cup is to lose that dog to some form of illness.

You'll no doubt come to realize who the man in this story is, but more importantly, he would like you to know a little about his beloved dog, Tippy. He feels this may help those who have had similar heart-breaking losses come to grips with it all. To know you're not alone often buffers the pain of whatever it is that troubles you. He would share with you the feeling that so often weighs heavy on his aging heart. The feeling that often has him tossing and turning in his sleep, calling her name. "C'mon over here, Tip. Sleep with your old Pappy." Waking his wife, and frequently his two children, each time, they would shake him and say, "Tippy is gone, Poppa, wake up and let her go."

Consciously, he tries to let Tippy go. But in the deepest chambers of his heart and the recesses of his never restful mind, it just doesn't happen. He and old Tip have a lot of unfinished business, and he so very much wants to know for certain whether she felt him kissing her goodbye the day he lay her in the ground. It's been bothering him for far too long, and he prays that when his time comes, God allows him to go wherever it is dogs go. Why, he'd bet his old Fox Sterlingworth Tip will be the one to answer the door up there. Heck, she was always the first to be there whenever he'd come home from somewhere. And surely you know that dog spelled backwards is God. No doubt then about who made 'em.

This man always leaned toward the

blue-collar side of life. Partly because, as an outdoor writer — doing what he loved most — his paltry income demanded it. And that has always been okay with him. He didn't mind that there was nothing fancy about him, his demeanor or anything he possessed. Take for example the time when everyone at a splendid black-tie affair wore tails and stiff, white collars, and here came the outdoor writer, happier than a Brittany sniffing a bushel of grouse feathers, wearing a well-worn corduroy jacket in earth tone with worn simulated leather elbow patches. But fairly new jeans with a razor crease kept him from being labeled the "vagrant looking, nonconformist."

Being a simple man, he preferred dogs that came in a plain, brown wrapper. And that's what this story is about.

Most of his gunning friends and writer acquaintances at one time or another either owned a legendary gun dog or frequently hunted over them. Certainly, he wanted to make at least a tenuous attempt at keeping up with the well-known writers who so often hunted over fabled gun dogs, even though he had an ardent taste for the inelegant and a sound distaste for anything that may well qualify as a status quo object, living or otherwise. But he was driven to search "for a dog that would own me without being ashamed," he'd always say.

Ultimately, he forked out two hard-earned \$20 bills on a dog. Obviously, \$40 didn't get him an elite Brittany in lemon and buff. We must keep in mind here that his taste had forever been, at best, pedestrian, and that he would

always be, under any circumstance, a simple, blue-collar kind of guy. So what did he buy? Certainly you've guessed by now. He bought a Pennsylvania "dawg," one that seemed to fit right into the briars, brambles and vicious multiflora rose. It could only be a beagle. And even though he said she was vividly reminiscent of a streamlined piglet, she came chock full of love, loyalty and that heavenly canine manner of understanding. She fit his lifestyle — common man he is — to the proverbial "T."

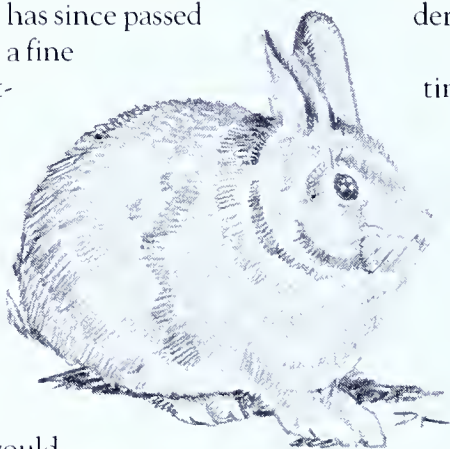
He was a friend to the legendary writer Gene Hill, who has since passed on. Gene once owned a fine Lab, an ebony sweetheart by the name of Tippy. When Gene's Tippy passed away, Joe felt she no longer needed use of the name, except in Gene's nightly prayers, so he wrote and asked if Gene would mind if he named his beagle Tippy. Gene, gentleman he was, wrote him, "Joseph, my very best to Tippy Two. It's a grand old name. Let the dog chew on your shoe, Joseph, she'd give you hers if you wanted to chew on it. My best, Gene."

Tippy Two had more than just a scenting ability that surpassed astounding. She nurtured a burning propensity to thoroughly please this man and his family that was so uncommonly wondrous, so unyielding, so determined, it had to have hurt her physically. But she always seemed to fully enjoy her efforts.

She forever tried to love each family member equally. And always she would run from one to the other, licking their faces as though she kept count. Let's see now, that was three for

old Pop, three for Mom, three for Justin and, whoops, two for Erika. Her count, strangely enough, came out just right, and Erika, of course, got kiss number three.

Tippy could have excelled in any field trial, but her owner didn't believe in putting that kind of stress on a dog intended for a pet. A simple hunting pal. He was content to have her nearby, snoring at the foot of the bed, paws twitching with sweet dreams. And he was more contented with her intense devotion and the occasional rabbit taken off her circling chases. For a simple rub behind her velvet-like ears, she'd give back the tenderness a thousand fold.



There were, of course, times when he and his family would have to leave her alone in the house for an hour or so, and when they'd return, a person might think they'd been away for months. She'd cry so loudly, howling and kissing every family member as fast as her stubby legs

would carry her from one to the other. Once a neighbor who obviously knew nothing about how hounds adore humans (and vice versa), called the Humane Society on them, thinking they were abusing her. Perhaps they were, if hugging her very hard and long falls into the abuse category.

Once, while walking with the family in the Endless Mountains of Tioga County, Tippy tore enthusiastically toward a nearby trout stream. About the time Tippy reached the creek, they heard her cry out loudly, almost as though struck by something. Joe ran to her right away and noticed she favored a front paw. She was noticeably limping, so he scooped her into his arms and carried her to the station wagon where he could check her out. He scrutinized every inch of her trembling body as she cried with pain, over and over and over again, but he

found not so much as a hair out of place.

To this very day they don't know what hurt Tip that day. All they knew is that it wasn't a timber rattler bite, but from that day on, Tippy's health deteriorated progressively — and far too quickly.

He knew, by way of a nagging and terrible gut feeling, that he was going to lose this symbol of love, a hunting companion and a member of the family he loved as well as any other, though differently. He knew his children would soon lose their loving guardian. A little plain dog that may very well have killed a stranger for messing with "her" children. In protecting her children, Tippy was, and only then, an animal.

The vet said she had cancer, but Joe never believed it. The vet said, "just six months, best scenario." Six more months to share with them, to love them to no limit and, of course, them loving her to no end. Six more months to snore and twitch her little paws during doggie dreams. "My dear God," he would say, "I'm dying a little each day myself."

But he had guessed that perhaps God needed her. Perhaps to prod the derriere of a fleeing cottontail. He said, half-smiling, "So God is a blue-collar kind of guy, too." He had to wonder. A sort of therapy to divert his thoughts from that which was so painfully obvious. But they had one heck of a time living with Tippy dying. It was easy to see the incredible hurt in their eyes, especially the childrens'.

He recalled many sleepless nights of prayer. "Please God, if you would, just show me how to make the remainder of Tip's life totally wonderful. You know, completely full. I want her to realize every joy she ever dreamed of, all of those that made her whimper and wiggle her little feet as she slept snoring at the foot of our beds."

Months passed and Tippy grew visibly worse. Many times he pleaded with his family to allow him to have her put to sleep, so she could retain that royal, marvelous pride of hers. His children and he wanted

so much to hold onto her just a little while longer, though. "There were countless times," he said as he rubbed a caring thumb across the surface of her photo, "when I wanted to die in her place but knew that kind of thinking was at best, irrational, foolish and unsound." Time after time, he'd ask his family to, "Let go. It's best for Tip," all the while feigning his own incredibly tenacious reluctance.

One autumn morning while running errands in town he had to pass their home as he headed to another place on the other side of the borough. He noticed Tippy lying on the porch in the warmth of the morning sun. He thought of his beloved Native Americans and their feelings regarding the sun. He thought about how they believe that gold is simply the tears of the sun, while the greed of the white man sees it as something else. They also believe that the sun is the source of all life, and they aren't far off.

Tip looked pitiful, lying there on her side, so devoid of her once cherished enthusiasm. That which she had an unusual abundance of in those sweet not so long ago days. She was but six years old then. And that lack of life within her had to be terribly confusing for her.

He stopped the pickup in the middle of the street and rushed to her side. She seemed all but gone, and with her eyes half closed she appeared to be looking to the sun for help. He didn't know. Perhaps in some cosmic, magical language between dog and universal energy, she asked for a little more time. Perhaps Tippy felt she could absorb some of that solar energy into her own, now nearly lifeless body. It was so terribly obvious in her sienna, hazel eyes that she simply wanted more time.

He ran into the house and grabbed his shotgun and a fistful of shotshells.

His wife intercepted him on his way back through the living room. "What in the world are you going to do?"

"I'm taking Tippy for one last hunt, that's what," he said.

He cradled her in his arms and headed for the pickup. She held on courageously, by a rapidly weakening thread weaved of golden, silken love. Perhaps she wanted unselfishly to stick around, to love them, take care of them and yes, to cry for them when they were occasionally forced to leave her behind. Whatever it was, some-

thing caused her to hang on almost six months longer than the vet had estimated.

And even though Tip outlived the vet's prediction, although lethargic for the most part, she always seemed to have the energy to wag her tail when they spoke to her. Joe couldn't have asked for a more loving dog or friend.

He drove Tippy to a place where there were always rabbits. Tippy loved the scent of rabbits, brambles, briars and unbound freedom and space. Perhaps even more than the occasional steak they'd cook up for her in spite of Joe's blue-collar wages.

"Tippy, you're not quite up to chasing bunnies today, so old Pop will take care of it for you," he said softly to the dog. Joe carried her cradled in his arm until it became numb. She was so relaxed, and her little well defined head bobbed with every step as they hunted for a bunny. She licked Joe's hand as though apologizing for being such a burden. He summoned a memory of a long ago song and told her, "You ain't heavy, Tippy, you're my sweetheart."

The autumn sun had him sweating heavily, but after about 15 minutes Joe flushed and rolled a bunny with one shot from the old Fox. Joe retrieved the bunny for his beloved Tip, and as he lifted it to her dry nose she looked into his eyes as if to say, I'm sorry Boss, but I just can't help you anymore. Wish I could.

Joe walked her out of the brush to a clearing where there was a large rock beneath an ancient hemlock, to sit and share in the joy of what he knew was Tip's last bunny. He lay the rabbit down then placed Tip right next to it, so she could



bury her nose deeply into the scent-filled fur. Then he left her side to walk to the truck for a shovel. They were friends, save the painful times when he had to be disciplinarian but, even then, he thought Tip understood that he loved her regardless. He sure hoped so.

As he walked back to her, he saw something that brought tears to his eyes. He could see that Tip had placed one paw upon her bunny. As he reached her side, she was breathing, but laboriously. Joe just sat there. He was at a total loss for appropriate words and how to ease her passing.

In a few moments Tippy left for wherever it is God takes his greatest creations. And although he doesn't know, he'd sure like to think she felt him kissing her head that one last time.

Joe moved the rock and dug a deep hole and then went to the truck for her elaborate little casket, one he'd made special months before. He said so long, and after sealing her casket, placed her into the grave, knowing, somehow, that he would see her again.

After covering it and replacing the rock, he used a stone to inscribe the four simple words, "We love you Tippy." Simple, but appropriate for a plain, blue-collar "dawg."

They say, in ignorance, that time heals all wounds. That's the worst one-liner there is. Time hides the wound, covers it with scarring just enough that it doesn't show all that much, at least when we speak of losing a dog. And sure, the man in this story is still a blue-collar guy. But with Tippy gone, a lot poorer than ever before. After all, she was the only real wealth he'd ever known. And no, never again will he allow another hunting dog to adopt him.

Since then, however, another family member has been acquired, a remarkable sort of mutt, half shepherd with some rottweiler and collie. They call him Bear, and

a dog full of more love and devotion lies only beneath a hemlock tree, somewhere in the Endless Mountains. Endless somehow seems so fitting. Is Bear a replacement for Tippy? Of course not. You can't replace lost love and devotion. What you do is merely supplement as best you can with another dog, and pray to God it buffers some of your pain, however little.

Do they love Bear as much as they did Tip? Certainly. But differently.

And he loves them to where it often appears to hurt him, for he cries when they come home as Tip did. Did they ever take Bear to the gravesite where Tippy sleeps? Yes, once. Did he sniff the site and cry? No. But they honestly felt he wanted to when he

sensed their mood that day. But then how could he know that they were hurting. Who knows? All they truly know is that Bear appeared very saddened as they "spoke" with Tippy that day.

They got Bear because there seemed to be so much of an over abundance of love they needed to give, to show, to let go of. For of life's many joys, few if any, equal the joy between man and dog. They thank God every day, especially the blue-collar man in this story. He's happy that his family understands that kind of love that sometimes had them feeling he neglected them for Tippy. So Tippy, then, taught them how to deeply love, and a grand job she did.

In that sense Tippy shall live on forever. And, not too long from now, the man in this story is going to rustle her up another bunny, which may be her first in a place where great things never die. □

*In a few moments
Tippy left for
wherever it is God
takes his greatest
creations.*

1998 Bear Season Results

By Gary Alt,
PGC Wildlife Biologist

THE 1998 hunting season resulted in a record 2,598 bears, which significantly surpassed the previous record of 2,220 taken in 1989. The third and fourth largest harvests were 2,190 and 2,110 taken, respectively, in 1995 and 1997. Although last fall's bear harvest was a record, in the western third of the state most of the counties harvested less than 70 percent of their former record, and only Butler County produced a new high. In contrast, 18 counties in eastern and central Pennsylvania set new records. Harvests were unusually high in northeastern Pennsylvania.

The range of black bears in Pennsylvania has more than doubled in the past two decades, resulting in bears being harvested in more counties in recent years. In 1998, bears were taken in 49 of our 67 counties. From 48 to

50 counties contributed to each of the last four harvests. Bears were always harvested in less than 40 counties between 1949 (when kill by county records began) and 1991.

The 10 counties providing the largest harvests were Lycoming, 235; Clinton, 219; Pike, 160; Monroe, 135; Centre, 133; McKean, 115; Tioga, 112; Wayne, 104; Clearfield, 103; and Potter, 89. This is the first time Wayne County made the top 10, nearly doubling its former record of 57 set the year before. It's hard to believe that harvests in Wayne County averaged only three bears per year in the 1970s. Wayne is just one of many counties that we formerly considered peripheral bear range but has since become more heavily populated with bears.

Hunters often compare the number of bears harvested in one county versus another to see where the "best" bear areas are. However, this approach is biased. Some counties are much larger than others, or have more bear habitat (forests) than others. For example, Lycoming County, with an area of 1,214 square miles, is more than three times the size of Cameron, with only 399 square miles. To really measure the productivity of one county versus another, it makes more sense to compare the number of bears harvested per unit area of forest habitat. In Table 1 counties are ranked both ways, according to harvest size and by the number of bears harvested per 100 square miles of forest.

More than 20 bears per 100 square miles of forest were taken in eight counties. Typically the top counties are from

BILL KERR, Mt. Union, found this bruin in a Huntingdon County clearcut last season.

Bob D'Angelo



Table 1. 1998 bear harvest ranked by county and harvest per 100 square miles of forest habitat.

Rank	County	Harvest	Rank	County	Harvest/ 100 Mi ²
1	Lycoming	235	1	Pike	35.5
2	Clinton	219	2	Monroe	29.3
3	Pike	160	3	Clinton	28.4
4	Monroe	135	4	Lycoming	24.6
5	Centre	133	5	Carbon	24.5
6	McKean	115	6	Wayne	21.7
7	Tioga	112	7	Union	21.5
8	Wayne	104	8	Cameron	21.0
9	Clearfield	103	9	Columbia	16.3
10	Potter	89	10	Centre	15.9
11	Cameron	78	11	Tioga	14.7
12	Luzerne	76	12	McKean	14.2
13	Carbon	70	13	Wyoming	13.8
14	Elk	69	14	Sullivan	13.7
15	Huntingdon	65	15	Forest	13.1
16	Somerset	63	16	Luzerne	13.0
17	Warren	59	17	Clearfield	12.1
18	Westmoreland	53	18	Lackawanna	10.9
19	Sullivan	53	19	Westmoreland	10.2
20	Forest	52	20	Blair	10.1
21	Union	46	21	Huntingdon	9.9
22	Columbia	42	22	Potter	9.6
23	Jefferson	38	23	Jefferson	9.4
24	Venango	36	24	Elk	9.2
25	Bradford	35	25	Somerset	9.1
26	Bedford	35	26	Warren	8.5
27	Blair	34	27	Mifflin	8.1
28	Lackawanna	34	28	Venango	7.4
29	Wyoming	34	29	Northampton	7.1
30	Schuylkill	32	30	Schuylkill	5.8
31	Cambria	25	31	Cambria	5.7
32	Mifflin	24	32	Bradford	5.2
33	Indiana	23	33	Armstrong	5.1
34	Fayette	20	34	Lebanon	4.9
35	Armstrong	18	35	Bedford	4.8
36	Susquehanna	14	36	Indiana	4.6
37	Clarion	13	37	Fayette	4.2
38	Northampton	9	38	Clarion	3.5
39	Lebanon	6	39	Montour	2.8
40	Juniata	6	40	Susquehanna	2.6
41	Dauphin	6	41	Juniata	2.3
42	Fulton	5	42	Dauphin	2.3
43	Northumberland	5	43	Northumberland	2.2
44	Berks	4	44	Snyder	1.8
45	Butler	4	45	Fulton	1.7
46	Snyder	3	46	Berks	1.3
47	Crawford	2	47	Butler	1.0
48	Montour	1	48	Crawford	0.4
49	Mercer	1	49	Mercer	0.4

Table 2. Number of bears and percentage of annual harvest taken during each day for three-day bear seasons, 1986-1998.

Year	First Day No. (%)	Second Day No. (%)	Third Day No. (%)	Total
1986	960 (70.5)	367 (26.9)	35 (2.6)	1,362
1987	1,187 (76.1)	262 (16.8)	111 (7.1)	1,560
1988	1,021 (63.3)	424 (26.3)	169 (10.4)	1,614
1989	1,427 (64.3)	537 (24.2)	256 (11.5)	2,220
1990	819 (68.3)	258 (21.5)	123 (10.3)	1,200
1991	1,062 (63.0)	427 (25.3)	198 (11.7)	1,687
1992	1,078 (67.8)	403 (25.4)	108 (6.8)	1,589
1993	1,193 (66.6)	415 (23.2)	182 (10.2)	1,790
1994	702 (51.4)	505 (37.0)	158 (11.6)	1,365
1995	1,403 (64.1)	536 (24.5)	251 (11.5)	2,190
1996	1,186 (66.0)	269 (15.0)	341 (19.0)	1,796
1997	1,320 (62.6)	551 (26.1)	239 (11.3)	2,110
1998	1,710 (65.8)	578 (22.2)	310 (11.9)	2,598

northcentral Pennsylvania, but not in 1998. Four of the top six counties were from the northeast where, due to drought conditions, swamps were drier than usual and easier for hunters to put on drives.

In 1998 the weather was favorable

for hunting all three days (no precipitation, low wind, moderate temperatures). There were 1,710 bears (66 percent) taken on the first day, 578 (22 percent) on the second day, and 310 (12 percent) on the third day. The harvest breakdown in 1998 was similar to earlier 3-day bear harvests (1986-97),

Table 3. Bear license sales and percentage of Pennsylvania bear hunters who harvested bears, 1981-1998.

Year	Licenses Sold	Bears Shot	Percent Success	Hunters Per Bear
1981	72,532	819	1.1	89
1982	90,000	588	0.7	153
1983	100,000	1,528	1.5	65
1984	99,975	1,549	1.5	65
1985	87,439	1,029	1.2	85
1986	94,700	1,362	1.4	70
1987	92,051	1,560	1.7	59
1988	91,604	1,614	1.8	57
1989	92,468	2,220	2.4	42
1990	93,348	1,200	1.3	78
1991	89,452	1,687	1.9	53
1992	91,165	1,589	1.7	57
1993	89,623	1,760	2.0	51
1994	89,408	1,365	1.5	66
1995	90,091	2,190	2.4	41
1996	93,893	1,796	1.9	52
1997	113,294	2,110	1.9	54
1998	114,767	2,598	2.3	44

Table 4. Number of black bears harvested, harvest rates, number of bears tagged, and annual statewide bear population estimates, 1980-98.

Year	No. Bear Harvested	Harvest Rate	No. Bear Tagged	Population Estimate
1980	921	0.205	676	4,452
1981	819	0.147	614	5,533
1982	588	0.131	692	4,430
1983	1,528	0.239	656	6,348
1984	1,549	0.219	640	7,035
1985	1,029	0.145	315	6,903
1986	1,362	0.181	336	7,387
1987	1,560	0.228	346	6,751
1988	1,614	0.219	298	7,292
1989	2,220	0.277	307	7,928
1990	1,200	0.174	288	6,782
1991	1,687	0.227	79	7,019
1992	1,589	0.189	301	8,252
1993	1,790	0.199	356	8,880
1994	1,365	0.158	386	8,525
1995	2,190	0.235	439	9,269
1996	1,796	0.207	420	8,596
1997	2,110	0.208	566	10,057
1998	2,598	0.261	441	9,902

which averaged 65, 25 and 10 percent for, respectively, the first, second and third days (Table 2).

Bear license sales have increased significantly the past two years. From 1985 to 1996 bear licenses were sold only at the Game Commission headquarters in Harrisburg and six region offices, and sales remained very stable, averaging 91,270 and ranging only from 87,439 to 94,700 (Table 3). Since 1997 they were made available at more than 1,000 license issuing agent locations throughout the state. This resulted in the sale of 116,946 bear licenses in 1997 and 114,767 in 1998 — a 27 percent increase in hunting pressure.

In 1998, 2.3 percent (2,598 of 114,767) of licensed hunters harvested a bear. This amounted to about 44 bear hunters for each bear harvested, and was the third highest success rate since at least 1981 (Table 3). The percentage of hunters that shot bears between 1981 and 1997 has averaged 1.6 percent and ranged from 0.7 to 2.4 percent.

Wildlife conservation officers, biologists and technicians tagged 441 bears during 1998, of which 115 were harvested, yielding a harvest rate of 26.1 percent. This was second only to 1989 and significantly above the 1980-97 average of 19.9 percent. Harvest rates have ranged from 13.1 to 27.7 percent since 1981 (Table 4).

The size of Pennsylvania's bear population is estimated each fall based on the number of bears tagged, the proportion of those tagged bears that are harvested and on the size of the harvest. In 1998 the bear population was estimated at slightly under 10,000, and very similar to 1997. Bear population estimates have been increasing the past two decades (Table 4). Based on the large harvest last fall, Pennsylvania's black bear population in 1999 should decrease somewhat from 1998, especially in the north-east. □



TOM
Gallquich
"qq"

When the Leaves Change

By Dave Dufford

A LARGE section of game lands lies just a few hundred yards beyond my front door. Doing most of my hunting on that piece of public land, I often meet and talk with other hunters. Frankly, I rather enjoy these meetings. When two hunters meet, hunting is generally their main topic of conversation. The talk may pertain to hunting equipment, dogs, hunting techniques or personal experiences. I confess that I'm terrible at remembering names. I'm much better with faces, and when I encounter one I've seen before, even after a year or two has passed, I can usually recall a great deal about our past conversation. The fact that I can remember something another hunter said to me a year or more earlier suggests to me that these are people I wouldn't mind getting to know better.

Slightly more than a mile from my home is a wooded hilltop bordering a large overgrown field that slopes away on the eastern side. Fewer than 30 yards in from the edge of the field lies the remains of an ancient maple, one I'll surely miss when it decays away. I spend a good deal of time hunting grouse, and over the years I've made it a point to stop at that log when my hunting leads me nearby. If I've been hunting long, the log is a welcomed place to sit and rest, but it's always a good place to stop for a time and reflect on my hunt.

One day last fall I stopped at the log to celebrate and savor an event. My approach that day had led me across the corner of the field, and before I entered the woods the actions of the young springer prepared me for game. A few moments later, as I sat

on the log with a grouse resting beside me, I watched the young dog's excitement as she buried her nose in its feathers.

At 14 months this was Annie's first season, and although I'd already bagged a few woodcock and pheasants in front of her, this was the first grouse. It had never occurred to me with any of my other dogs, but Annie had shown so much promise during training that I decided to keep a record of her flushes once hunting season opened. By the end of the season, between grouse, woodcock and pheasant, she had flushed 61 birds. While she is still not the equal of Crockett, my companion of the past eight years, I was pleased with her performance. Watching her drink in the bird's scent, I realized what a natural thing it is for a good dog to have a deep and lasting effect on a person's life.

It's unusual that I should still recall his name, but I once sat on this same log and had a rather long talk with a hunter who introduced himself as Billy Cooper. I was between dogs at the time, and by the time I passed through this area I had been climbing the hills in search of grouse for hours. When I first noticed the squirrel hunter standing with his back to a large oak, I was about to leave before disturbing him any more than I already had. I'd been making no effort to move quietly, and I'm sure he heard my approach long before I noticed him standing there.

A smile and a friendly wave motioning me toward him halted my departure.

As I came closer I saw a hunter who was lean and tall, with a somewhat prominent nose and sandy colored hair that was slightly graying at the temples. Both his hunting coat and rumpled cap had seen many seasons and a fair amount of brush along the way. Rested on his arm was a well-worn lever action .22, a vintage Marlin, but the three fat gray squirrels near his feet suggested the rifle was in better shape than it looked. When I made a comment about his success he motioned me to sit on the log as he related the details. We hadn't talked long when Billy raised a hand that signaled me to listen.

He pointed toward the overgrown field that lay beyond the edge of the woods. I heard nothing but a breeze drifting through the leaves at first, but then, from somewhere far down the hill, I could hear a beagle giving chase.

"Sounds like a hot one for sure," Billy said with a nod and a broad smile that indicated the pleasure the sound brought to him. He said he might have left before I arrived, but an earlier chase in the field below had kept him at the tree, "just to listen to the music," as he put it. A self-proclaimed beagle man, Billy had kept beagles most of his life. The last one he owned had died several years earlier, and Billy had some doubts about having enough time left for another.

"I was already 71 then," he said, "so

for the past couple of years I've settled for doing all my rabbit hunting by memory."

He became silent for a moment as he looked off toward the sound of the chase, and when he spoke again it was to ask if I had ever hunted with beagles. I told him I'd owned a few while I was in my 20s and remarked that that had been about 10 years ago. He turned to face me with a smile in his eyes.

Billy's relationship with his dog enabled him to realize that his days of playing with toys were coming to an end, and that he was taking his first wobbly steps toward manhood.

"That's not been as long ago as you might think." He went on to say that I would probably think that 1923 was a long time ago, but the spring of that year was when he celebrated his 12th birthday. At that time a neighbor's dog had a litter of pups, and he wanted one for a pet. Billy said he began "a pestering campaign" that lasted for two days before his father finally

said, "For the last time, no!" By that time in his life Billy had learned that, "for the last time" coming from his father meant exactly that. "If you want a dog so bad, Billy," his father continued, "then why don't you start to pay more attention to that little hound pup you brought home last summer. She's almost a year old now and you've hardly ever let her off the chain."

Billy was upset about not being allowed to get the new pup he wanted, but he also realized that his father was right. He had gone through all that pestering and hopping last year before he brought home the little beagle he'd named Belle. As he sat on the porch step thinking about it, a twinge of guilt moved him toward the old chicken coop where the dog was tied. He had done exactly what his father had said he would, just playing with her for the first month or two while she was still a cute little

puppy. After that, he had to admit, he didn't do much more than give her food and water, and to check from time to time that her collar wasn't getting too tight.

When Billy called, the beagle slowly crawled out from under the chicken coop. They hadn't raised chickens in years, and Belle preferred the cool ground below the floor of the old coop during the hot afternoons. The boy bent down, stroking a long pendulous ear as his father looked on.

"You know, Billy," the man said as he watched his son petting the dog, "I've never paid much attention myself until now, but that's a better looking hound than Queen was. If you'd take some time to train her, we might get some use out of her come hunting season."

Billy was pleased that his father had compared Belle to Queen. He'd heard a lot of hunting stories about that dog for as many years as he could remember. Queen was around before Billy was born, but his father talked about her as though she was still tied up just behind the house.

That fall was to be his first year of hunting, but right then Billy was more interested in having a pet than a hunting dog. All he wanted was a dog he could run and play with, and all that summer the two of them got reacquainted. From the moment he began his new friendship with the little dog he knew that a bond was developing between them, and as the days turned into weeks, the bond grew stronger.

At the same time something much more subtle was taking place, something both inevitable and irreversible. When Billy began to realize what was happening, he wasn't sure whether he should be frightened or proud. He came to realize the obligation there is in owning something alive and dependent upon him, and he found satisfaction in fulfilling that obligation. He wondered how the little dog had forgiven

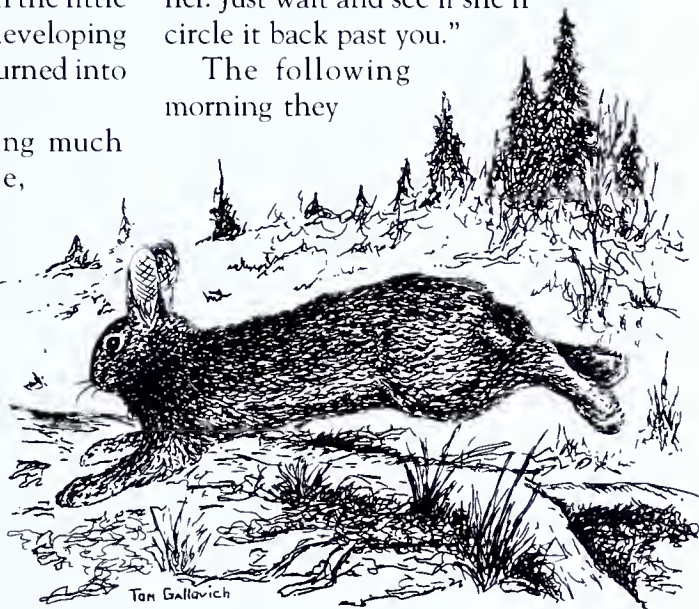
him so quickly for his past lack of attention. In this way Billy also came to realize that his days of playing with toys were coming to an end, and that he was taking his first wobbly steps toward manhood.

Near the end of July, Mr. Cooper again urged his son to consider training Belle to hunt rabbits. Working two jobs left him with little spare time to help, but his encouragement and advice was enough to get the young pair started.

Their first few trips out were unsuccessful, until one evening when a rabbit ran in front of the dog where she could see it. She chased it by sight until it vanished into the thick brush, and moments after she disappeared, Billy heard her first ever cry. That's all there was to the chase, but a start had been made, and Billy couldn't wait to tell his father about it when he returned home from work that night.

"That's good news." Billy's dad said when he heard what had happened. "Now that she's starting to get interested, you'll want to keep her working at it. Take her out again first thing in the morning, and if she starts running one, stay put. Don't go chasing after her. Just wait and see if she'll circle it back past you."

The following morning they



had hardly entered the woods below the field when Belle jumped a rabbit and took off singing. Billy stood in his tracks, the sound of the dog's voice filling him with a sensation that was new to him. It wasn't long until he spotted the rabbit hopping slowly back toward him, but he was surprised at how far it was in front of the dog. As his father had instructed, Billy made a fuss over her as soon as she came trailing into sight, and Belle repeated the performance four more times that morning.

The two returned to the rabbit cover that same afternoon and again that evening after supper. The young dog had some good chases each trip out, and before long Billy's father spent every evening on the edge of his chair, listening to his son relate the details of each chase. Billy soon noticed that every time the dog circled a rabbit past him, it was merely poking along. Many times he watched as the rabbit would stop to nibble on a tender blade of grass before Belle would trail close enough to urge it along. Within a week, Billy learned to judge how far ahead a rabbit would run ahead of his dog.

Once school started, Belle's training runs were cut down to evenings only, but Billy still took her out in the morning on weekends. Not a day went by without Belle's voice echoing up out of the creek bottom. Mrs. Cooper became mildly concerned that her son was spending so much of his time with the dog, and one night Billy overheard her voice her concern to her husband. "Don't let it worry you," he smiled.

"When it comes right down to it, this is probably the best thing for him right now. He's never going to be a boy again, and this might be the only chance he'll ever get to know something like he has with that dog right now."

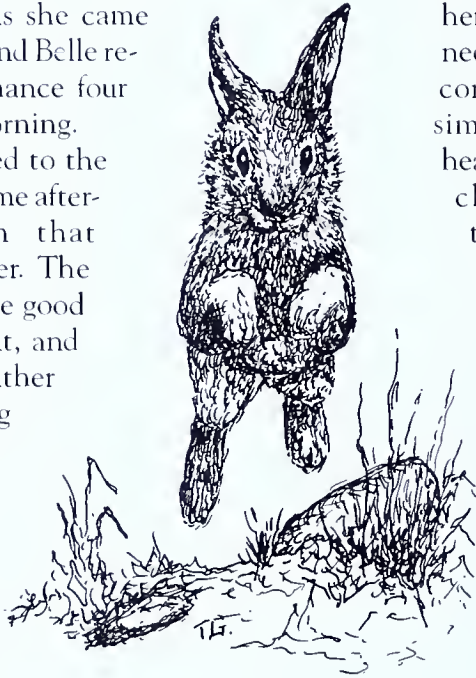
His affection for the dog aside, Billy was convinced there had never been another dog that could trail a rabbit any better.

Before long he wasn't running her because he thought she needed the training. Now he continued taking her out simply for the pleasure of hearing her sing. He'd watch closely when the dog trailed by, her nose snuffling along through the brush until she found where the rabbit had touched the ground. At that point Belle would throw back her head and let out a howl. When he noticed her tail twitching wildly and her voice changed to a series of short, high-pitched yips, Billy

knew to get ready for a ringneck to flush.

Next to the time he spent in the field with his dog, Billy most enjoyed the time he spent telling his father about the successful chases of the day. Mr. Cooper's summer job ended just before the season opened, and after his first trip out with the young pair he was convinced enough to tell his son that Belle was a better rabbit hound than Queen had been.

By the end of the season, father and son had both shot a lot of game in front of Belle, but the following summer she broke loose and found her way to the highway. Billy was devastated by this sad close to a chapter in his life, and he sat on the porch steps while his father went off to bury the dog. His mother beside him, she remarked that he was too much like his father for Belle to



ever really be gone, Billy gave her a puzzled look.

“You know how your father is always telling stories about Queen,” she explained, “and it’s the same way with you. You just wait and see. Every year, as sure as the leaves change, you’ll still hear Belle trailing every so often, from somewhere just off in the distance.”

Not long after he began to tell his story, the chase we’d been hearing ended at the sound of a shot. When Billy finished speaking, we sat silently for a moment before he spoke again. “And you know,” he finally said with a nod, “she was right about that.”

As soon as he said those words the sound of a new chase began from somewhere near the foot of the hill. The old man’s face lit up and he gave a chuckle. “I’m going to listen to that little hound sing one more song and then I’ll call it a day,” he said as he offered me his hand in parting.

After saying goodbye, I began to hunt my way back along the hilltop, moving farther into the woods. Before I had traveled far I stopped to look back and saw that Billy had moved to the edge of the field, where he stood leaning against a tree, listening to the chase below. From that distance, standing there with his rifle slung over his shoulder and wearing that old, baggy hunting coat, I couldn’t be certain if I was seeing the man who told me the story, or the boy he had spoken of.

That was more than 10 years ago, and I haven’t seen him since. My young springer places a paw on my lap to remind me that our hunt is not yet over, and as I give her a playful scratch behind the ear I wonder if perhaps by now he has found the dog that he lost so long ago. □

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Double Duty Broadhead

By George Dolnack

OCTOBER had long since shed its brilliant colors and slipped into drab shades of gray that was a precursor to winter. It was almost the middle of November, and my chance of connecting during the fading archery season was slipping away. The opportunities had been there, but I had passed in hopes of taking a buck with a nice rack. It was time to reconsider my options.

It was late afternoon on Thursday, November 14, 1996, and a relatively mild day. That morning I had been posted on the ground near a big oak that afforded adequate concealment

when I heard crashing in the woods in front of me. Whatever it was, it moved downhill and away.

At 4 p.m., as prearranged, I contacted my son, Chris, on the two-way radio. He said that a huge 6x6 bull elk came towards him, caught his scent and took off down the hill to the flat bordering the creek, where it stopped about 200 yards below him.

I always enjoy looking at elk, so I made my way over to Chris. The big bull studied us as we watched it. As we talked in hushed tones, I told Chris that I was coming down with a head cold and wasn't feeling up to snuff, so I was going to head back to camp.

We headed up the rise until we came to a huge uprooted aspen. There was a lot of deer sign around it, so I told Chris he ought to post there for the remainder of the afternoon. But Chris insisted that I finish out the day there, and I relented. After cleaning the leaves from the downhill side of the root, I removed my fluorescent orange vest, wrapped it around a nearby sapling and settled in.

I was using a Jennings Carbon Supreme XLR compound bow set at 65 pounds draw with three pins sighted in at 20, 30 and 40 yards. I removed an arrow with a red mark on it from the bow quiver and nocked it. When I looked at the broadhead I thought about events that had occurred two months earlier — September 8.

On that day I took a 4x5 elk near Hebron, Colorado, with the same broadhead — a 100-grain, 3-bladed chisel point Muzzy fixed to a 2213 Superlite Easton XX75 Camo Hunter shaft. The bull stood broadside at about 35 yards and wheeled towards me when I released. The arrow entered the left side of its neck and buried itself in the liver. The elk ran 150 yards and dropped.

When I dressed out the elk and removed the 20 inches of shaft that had broken off, I inspected the broadhead. Its blades — which had not hit any bone — still appeared razor sharp. I placed the remnant of the shaft in the bow quiver. Later, I removed the broadhead, cleaned it and stored it in its container.

After returning home, a thought struck me. Why not try to take a whitetail with the same broadhead? Further examination through a magnifying glass showed no nicks or damage, so I sharpened it and attached it to a new shaft.

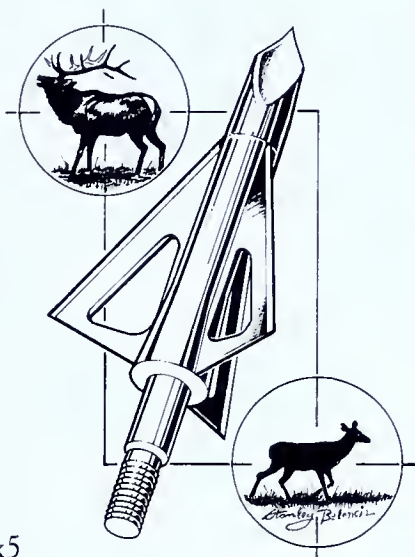
As I scanned the area above I saw movement. A deer was slowly making its way towards me, angling to my left. I dropped down on one knee behind the root and waited. I could see it was a big doe and decided to take her. When I saw her front legs, I attached the release, drew and held with the arrow placed between two long, thin

roots protruding from the uprooted aspen. The doe stepped into full view and stopped about 15 yards away. When she put her head down to feed, I put the 20-yard pin just behind her shoulder and released. I heard the hollow *thump* and watched as the doe hunched up, turned and ran back up the hill. I walked over to where she had been standing, saw blood and marked the spot

with fluorescent tape. Then I went back to camp and got my son.

We returned with flashlights, picked up the blood trail and found her less than 100 yards away. The arrow was sticking out of her right side. It entered just in back of the front leg, angled into the heart and exited at the shoulder joint of the right leg, breaking it. This time two of the blades on the broadhead were bent and knicked from hitting bone.

The next day I retrieved the other part of the arrow with the fletching that broke off as she ran. I mounted the two arrows and broadhead on a plaque with an inscription on a brass plate that reads, "4x5 Elk — Hebron, Colorado, 9/8/96" and below it "Doe — Cameron County, PA, 11/14/96." It will always be a reminder of my double duty broadhead. □



A Hawk's Talon

By Andrew Smeltz

“BOY, this place is lousy with squirrels,” Karl Striedieck said as he drove through the woods on a gravel road, both of his hands on the steering wheel, craning his neck to look into treetops. Just a few minutes later, Karl stood below a red-tailed hawk perched in a young oak. To the other side clung a gray squirrel. Karl watched with sharp eyes set in a face weathered brown. He shouted to the hawk and pointed at the squirrel. The hawk flew closer to Karl, but even with her keen sight, she still couldn’t pick out the motionless squirrel. Karl pulled a slingshot from his vest and zinged a pebble off the tree.

The squirrel flinched, and the hawk took off in pursuit. The squirrel dodged the hawk’s talons and scampered around the tree. The hawk wheeled and swooped again, but the squirrel dashed to the safety of a hollow knot. Excited and agitated, the hawk perched in a pine above Karl and preened her feathers. She flapped her russet brown wings and revealed a creamy under-body. She clenched and unclenched the branch in her talons and looked coldly at Karl and me, expectantly. We began the hunt again.

We scanned the trees for more squirrels, but our search was cut short. A rustle of shaking branches and flapping wings caused me to turn just in time to see a squirrel falling from a tree and the hawk, with outstretched talons, spiraling down after it. The squirrel hit the ground, stunned only for a moment

but long enough for the hawk to seize the it with one foot. The next moment was one of fury, the squirrel scrambling for its life and the hawk grasping for a better hold. Finally, the squirrel broke free and dashed to safety.

About 140 Pennsylvanians are licensed to practice falconry, the sport where man and raptor hunt together. The cooperation between the two requires intense devotion and patience on the part of the falconer; in fact, it’s not uncommon for the falconer’s dedication to end a marriage or a job. The raptor’s safety and health must always be first in the falconer’s mind, and the falconer must spend time with the bird every day to ensure its health and to build a relationship of trust.

On a chilly morning in late October, Karl and I stood on Bald Eagle Ridge, near his home. We watched the sky for migrating hawks. With Karl’s help, I learned to identify the golden eagle, American kestrel and red-tailed hawk, as he had learned many years ago. It was incredible to me that there could be so many. We sighted six redtails, two golden eagles, a marsh hawk and a sharp-shinned hawk, all within an hour. Since that morning, I see hawks all the time. I just had to learn to look up more often.

“I used to go bird watching,” says Karl. “I’d identify and count the raptors; it’s something I got interested in during my childhood. My heroes in those days were the Craighead twins, John and Frank.” It was the Craigheads who were responsible for most of the growth in the popularity of American falconry, with a book called *Hawks in the Hand*, and two articles for “National Geographic.”

"I read everything I could get my hands on," Karl continues, "just as you do when you're charged up about any subject, but I never got into falconry until five years ago. Then Tim Kimmel rented the house below me, and he kept four goshawks there. He took me hunting with him, and I thought that would be the time to do it. So he sponsored me. I took the exam and passed, and started my apprenticeship."

All falconers are licensed by the state and federal government. Training begins with a 2-year apprenticeship, but even before the apprenticeship, the hopeful falconer must pass an examination with a score of at least 80 percent. The exam covers biology, care and handling of raptors, regulations and other appropriate matter.

During the apprenticeship, the falconer learns to care for, hunt with, trap and train raptors. Other regulations include the need for equipment, a mews — the building where the raptor will be kept — and a weathering area — a safe, outdoor perch.

Falconers hunt a wide variety of game with their birds, primarily the game that the raptor would hunt naturally. In this, falconry is unique; it's the only sport that uses a trained, wild predator. It brings to mind the first hunters, our ancient ancestors who cooperated with wild dogs, or wolves, during the hunt. Imagine that tenuous trust between wolf and hunter,

men running with fire in their hands, wild dogs chasing down the driven game, and as the flatness from the prairie fire leapt higher, the hunter looked up to see a falcon, just a speck in the sky, waiting for its prey to be driven out by the flames.

Later, falconry became the sport of kings. The great khans hunted with hundreds of attendants to assist in the hunt. Middle Eastern sheiks would fly several Harris hawks at once to take down larger game, and European aristocracy, kings and queens, hunted with falcons in elegant fashion, all to the exclusion





of the commoner. Although falconry may now be practiced by anyone with patience and sincerity, the sport remains the activity of a devoted few.

"Falconry gives me a chance to handle a hawk, look at her eyes, see how she looks at things, try to establish a trust with her, and look at her behavior," says Karl. "Once you get the bird trained, you just go out hunting. It's fun to go into the woods, cooperate with this bird, and watch those miraculous flights they make to catch something."

Karl's hawk is named Foose. He trapped her in the fall of 1995, during her first migration, and hunted with her all winter. A passage bird — a raptor in its first year of life — can generally be trained in two to four weeks. Most passage birds will not make it through the winter. But if caught by a falconer, the young hawk will be an experienced hunter by spring, and under a falconer's care, the raptor's chance of survival rises to 95 percent.

The long road to becoming a falconer requires determination. Falconry isn't for those with a

passing interest or who want an exotic pet. "The toughest part of falconry," Karl says, "is the 24-hour-a-day responsibility for that bird. It's not as easy as a cat or a dog. It's like having a kid, really. It's on the back of your mind all the time. My only advice to beginners would be to read the Game Commission's brochure on falconry. The title is "Do You Really Want To Become A Falconer?" It's full of good advice.

The falconer should feed and train the hawk at the same time every day. In addition to the general care for the hawk and maintenance of equipment, from October until March, Karl hunts with Foose about an hour each day. "The more you can hunt," Karl says, "the more regularly, the better off the bird is. It's healthier that way. I've tried to take her

Many species of raptors are used in falconry. A significant number of Pennsylvania's falconers use red-tailed hawks or kestrels, both of which are native to the state. Other common birds used in falconry are merlins, prairie falcons, peregrine falcons, gyrfalcons, sharp-shinned hawks, goshawks, Cooper's hawks, ferruginous hawks and Harris hawks.

every single day, and she's really got the routine down. She knows at three o'clock the car's gonna roll up. I'll get my vest on and come out, and she flies down. The whole time, she just sits quietly in the car while I drive. When I get to the hunting site, I open the back door, and she starts chirping. She runs out onto my fist, and stays there until she gets her bearings. Then, she wants to fly."

Initially, the falconer teaches the raptor to feed from his glove. The next

step is to teach it to fly from a nearby perch to the falconer. For passage birds a creance — a strong line that prevents the bird from flying away — is used, and the falconer places a piece of meat on his glove. If hungry enough, the hawk will make its first flight to the falconer's fist. After the raptor consistently returns to the falconer's fist, the bird may be flown after quarry.

During the training, there's no need to teach a bird of prey to hunt. One doesn't teach the falcon to break the prey's neck or a hawk to seize the vital organs with its talons. This comes naturally. Falconry is the art of training birds of prey to hunt with the falconer.

The raptor never becomes submissive. Even captive bred birds could not be considered domestic. Unlike dogs or cats, separated from their wild origins by thousands of years, raptors are wild. This is why falconers work so hard to build a relationship of trust and cooperation. Dogs may be punished and made to obey, but if a falconer ever punishes his raptor, the bird will never trust him again.

When I visited Karl for the first time, I pulled into the drive and saw Foose in her weathering area. At first, I almost overlooked her. She perched, motionless, 12 feet off the ground in a white pine and watched me. Turning her head, she followed me with her eyes as I walked toward the house.

I was early, and Ira, Karl's wife, told me that he was still in town. So, I walked up the shaded hill behind his house,



through the woods and to a grassy meadow atop the ridge. The sun hung low in the sky, painting everything golden: the bare trees, the grassy meadow, and the distant mountains. Flying low over the meadow was a kestrel. It flew only a short distance and then paused, holding itself aloft with swift wingbeats. Then it dove, hunting insects, most likely grasshoppers.

I watched the kestrel, holding back a respectful distance, moving closer when it flew farther away. The kestrel continued hunting, undisturbed by my presence. I had never watched a raptor so closely before, or felt the fierce gaze of a bird only feet away. I share the raptor's thrill for the hunt, and I gaze into the sky as the hawk soars aloft. The falconer raises his arm, and the hawk flies to his fist, natural, wild and free. □

URSA MINOR



THE WORN TRAIL through the rhododendron thicket is more tunnel than path, as if bored by giant worms rather than generations of bears. A dog bear, as some would call such a leggy young bear, pads along this trail, his black form nebulous in the deep shade except for the glint of ivory grin set above the white chevron on his throat. He travels purposefully, a meal in mind. Where the thicket thins, he leaves the trail, angling down through an old burn, past blackened stumps like a statuary of the bear itself. He swings out of the burn and across a powerline.

Dog bear comes upon a wood turtle on the other side. The turtle retracts within its shell. The bear stands on the turtle, pushes down, steps back again. He sniffs at the portals and nibbles at the feet just out of reach. He tries to pry a leg out with his long tongue, but the leathery fortress is impenetrable. He licks the shell repeatedly, his tongue running over the bold geometric relief on the carapace. Frustrated, he sits down and licks his own paw, then flips the turtle over and over again. Then it slides like a flat stone under the leafy duff and he loses interest. With dark approaching he continues down the mountain, the taste of turtle on his lips, but no sweet meat within his pinching gut.

Dog bear walks the thicket between a rail line and the river and stops at a clearing, the site of a derailment two years previous. Greasy discarded ties lie in profusion. Blackberry canes have sprouted in the opening and between the spaces of the overlapping ties. The canes arc under the weight of ripe fruit. Hungry but cautious, dog bear listens and tests the air, in fear of mature bears that might have claimed this food source. He waits long minutes, nose working the air, ears pricked forward. Sat-

ified that all is safe, he works the canes feverishly, a purple froth gathers in the corners of his mouth. He snuffles down berries into the night, while overhead Perseid meteors flash and die in the black dome of the August sky.

Content now, dog bear rests, sucking in the cool night air that slides down the mountain. He exhales suddenly and violently through flared nostrils and bolts from the patch up to the tracks, running at full tilt between the starlit rails like a phantom locomotive. He crashes back into the thicket, and splashes across the shallows of the river and hides in the reedy mire among a chorus of frogs. Back at the berry patch a great boar bear pants in the dim light. He has a low slung belly, massive legs and at more than 500 pounds is what some call a hog bear.

Later that night, dog bear walks up behind a row of cottages along the river. On a patio he overturns a charcoal grill, licks grease and bits of charred meat from the grate, sniffs the rubble. At the next cottage he pulls down a pair of birdfeeders, eating all the sunflower seeds within one, tearing apart the other. At another cabin he finishes the dog food remaining in a dish on a deck and the rest of the food stored in a bag inside of a plastic container, all without waking the snoring weekenders and their very old dog inside. He discovers a child's pail on the grassy river frontage and happily crunches several irate crayfish inside. In a canoe, he finds a lunchbag full of scraps, and in a sandbox several watermelon rinds. He panics again when a tire swing he dislodges from the crotch of a willow tree swings back and thumps him on his rump.

The driving force of his existence is the relentless pursuit of food, and he is wonderfully equipped to find and eat things large or small, living or dead, plant, animal and mineral. He can graze, hunt, forage, kill, steal, scavenge, dig, climb, swim and fight for any potential meal. His body is a repository of the diverse bounty of the landscape, and the focus of his days is to fill that ever-expanding larder, and this he does with amazing skill and keen intelligence.

At first light dog bear fords the river, dashes across the train tracks and highway and ascends a deep mountain hollow. He follows a creek, stopping at a small shadowy pool. A tall waterfall, now barely a trickle, plunks musically in the pool, echoing in the hollow space behind. Dog bear drinks noisily, gulping and slurping, as he sits in the pool. Polypody ferns dance in the spray of water droplets that spatter off his back. The forest awakens, humid and steaming. A wood thrush sings, a towhee flits by, mosquitoes loop about each other as

PENN'S WOODS

SKETCHBOOK

BOB SOPCHICK

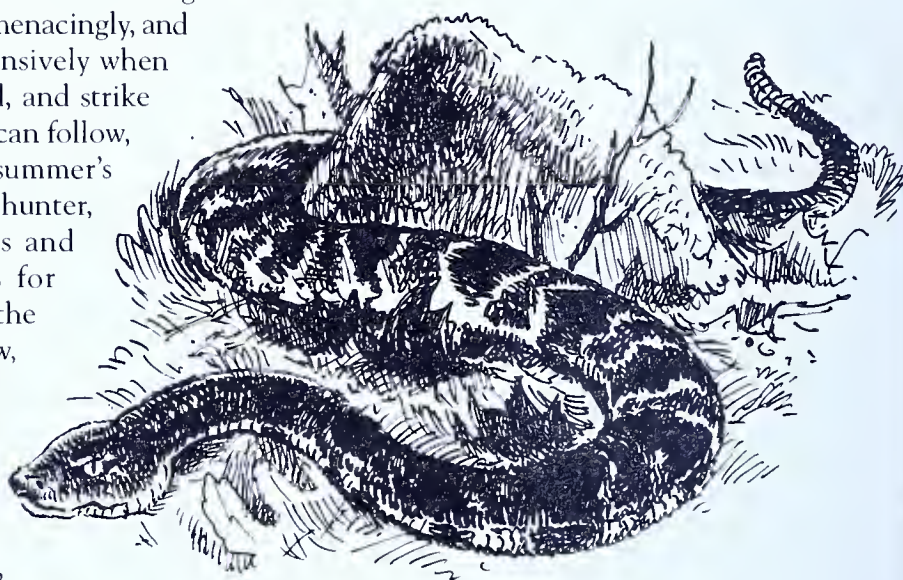


if held captive within an invisible ball. He drinks the gritty water again and heads for higher ground.

Dog bear rips apart a log to the punky core within. Black ants frantically evacuate, some carrying eggs, but most of the small colony do not escape his dexterous lips and tongue. He climbs up through a towering rock outcropping and comes out on a mossy ledge where he plops down, front legs stretched out before him. He looks intently down the slope at some bobbing silhouettes — wild turkey gobblers moving through the hemlocks — then relaxes. Secure in his rocky bastion, dog bear sleeps.

Farther up the ridge on another sunny ledge, a dozen pregnant timber rattlesnakes bask in the sun. They have been at this rookery all summer, not eating, body temperatures warm and stable, ensuring healthy development of the young they will bear live in a few weeks. A black phase male, nearly four feet long, slides through the congregation of females into the tumble of rocks below. He is the color of summer shadows and moves like dark smoke through the leaves. His is a world of long minutes and careful movement as he waits and hunts through the leaf

litter. He may buzz menacingly, and coil and recoil defensively when startled or annoyed, and strike faster than the eye can follow, but the rattler is summer's prudent and silent hunter, gleaning the rocks and logs and crevices for mice and birds. In the berry patch far below, a black snake hunts among the scattered railroad ties.



A family of vultures lifts off a rocky outcropping, instantly buoyed by

boiling thermals, they sail over the deep hollow. Their huge shadows crisscross over the undulating canopy as they spiral ever higher. Out in the valley they spy a reddish form lying on the rail grade. A doe struck by a truck struggled down through the thicket and expired near the rails. The vultures circle and descend to feed on the ripening carcass. After the feast they perch with wings outspread, macabre decorations on the twisted armature of a dead oak, like a prehistoric diorama, both ghastly and at once, beautiful.

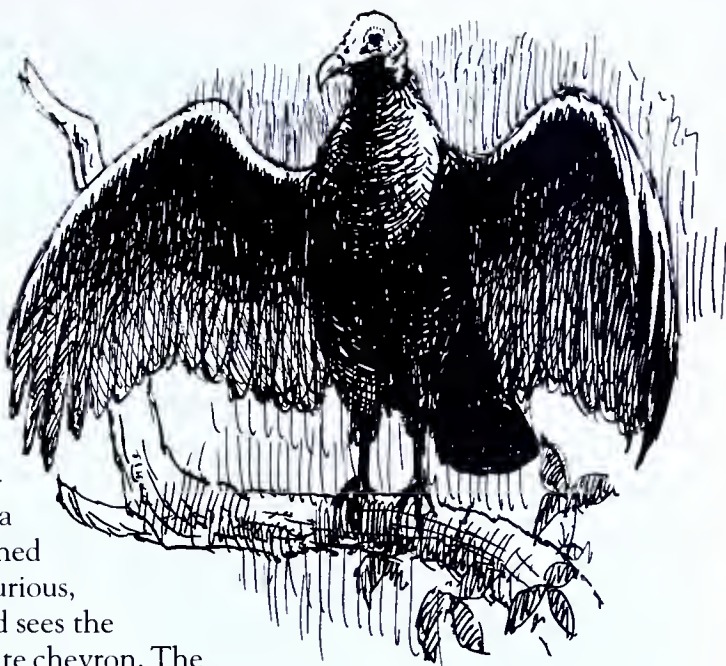
A trio of gobblers, longbeards all, file out of the hemlocks. They are sleek and black and silent, having resigned the discord of spring in favor of the strength of a hierarchy. They scratch through the detritus of the log ripped apart by dog bear, finding ants and millipedes and white grubs that curl up in the sun. One bird, then another dusts in the dirt pile near the upturned root mass. Loosened feathers are strewn about the rust-colored debris. The gobblers move off, silent lords of summer, anonymous sires of dozens of poults that feed and grow in the shadowy uplands.

Inky clouds bloom in the western sky, quickly blotting out the sun. No fierce storm, this but a gentle rain with only a mild complaint of thunder. It rains steadily, deliciously, for several hours. The mountains drink. A rivulet of water runs off an overhang, down a long rhododendron leaf, into another and patters between the eyes of the sleeping dog

bear. Too lethargic to move back under the overhang, he turns his head and the drops plunk off his twitching left ear. Dog bear stretches and yawns and licks the water from his nose. The rain ceases and a cool breeze nudges the humidity from the uplands. The flute song of a thrush drifts up the hollow and is answered by the *aaah!* of one crow, and the louder *aaaw!* of another.

The crow looks across the hollow and spots a white shape, like a small white bird with outstretched wings moving in the shadows. Curious, it flies across for a closer look and sees the rising and falling of dog bear's white chevron. The crow's urgent calls bring others, spoiling for some sport after the invigorating rain. Their raging tirades echo off the ledges, prying the bear from his hideout. He stands with ears laid back, and as the mob's screams reach a crescendo he exits the rocks and hustles up over the ridge.

He traverses the old burn again, ranges higher, and emerges into a sea of tossing ferns at the very apogee of the uplands, where a potent wind carries the secrets of summer shadows and the first urgent whisper of autumn. Dog bear moves along quickly, a meal in mind.



EPILOGUE

The dead of winter, snowy and frigid. The green, leafy canopy of August lies brown and tattered under the snow, now protecting the earth while serving as another shadowy world for smaller creatures. The wild turkey gobblers, black barons of this bleak and desolate landscape, proceed cautiously to a frosty seep. Gone are the blackberries and black snakes. Gone, too, the ants and dusky vultures and crows. The timber rattler hibernates in a den under a high ledge with others of his kind. Farther down the ridge dog bear also sleeps, the wild black heart of the mountain itself, beating slowly in a rocky bosom, in this season, in this night, while *Ursa Minor*, the little bear, pads endlessly through starry thickets.



Wetland Plant Management

By Kevin Jacobs,
PGC Wildlife Biologist

HAVE YOU ever noticed how waterfowl and shorebirds are quickly attracted to newly flooded wetlands? Perhaps, in early April following the snow melt, a seasonally flooded bottomland down the road suddenly becomes a waterfowl haven. Another good example is all the mallards and snipe you see feeding in sheet water formed in a freshly harvested cornfield following several days of rain. Did you ever wonder where these birds came from, especially when another nearby wetland with permanent or stable water levels for many years contains few or no birds? Consider a newly flooded beaver dam. Do you remember how many wetland birds you saw during the first few years it was flooded? After five or 10 years of relatively stable water levels, however, that same beaver dam holds only a fraction of the wildlife.

When one thinks of wetland habitats, images of large expanses of open water choked with submerged aquatic plants and fringed with lush reeds appear. Important as these permanent wetlands are, just as important are temporary or seasonally flooded wetlands, especially during the migration and breeding seasons. As the names imply, these are wetlands where water conditions can change dramatically, seasonally and over several years. The cornfield I mentioned above used to

be a seasonally flooded wetland. It still is in some respects, but is tile drained to allow for grain production during normal (non-wet) years.

Nationwide, more temporary wetlands have been lost or altered than any other wetland type, because they are easily mistaken for soggy upland. And they continue to be most vulnerable to draining today. But that is another subject for another article. The purpose of this article is to examine why temporary wetlands are so important to wildlife and look at how a study of wetland plants may provide for more productive wetland habitats in Pennsylvania.

Within diked wetlands, managers have long used water level management to grow specific plants preferred by waterfowl. In many ways, these managers attempt to mimic natural wet and dry cycles that occur in temporary wetlands. Water level management involves artificially drawing down wetland water levels during specific time periods in order to provide the proper soil moisture and temperature for the growth of valuable wildlife foods. Research has shown that seeds of certain natural plants, especially grasses, sedges, rushes and smartweed — the plants that provide food for waterfowl — require exposed moist soil or mudflats during the spring to germinate and grow. More recently, biologists have examined the relationships of how entire wetland plant and animal communities respond to varying types of wetland water-

level management. For example, how invertebrates such as midges, dragon fly larvae and mosquito larvae, as well as the birds that prey on them, vary according to management.

Within the Game Commission's 1.4 million acres of state game lands are multitudes of constructed wetlands. Thousands of natural and constructed wetlands exist on other public and private lands throughout Pennsylvania.

The very successful U.S. Fish & Wildlife Service's "Partners for Fish and Wildlife Program" — which began in 1987 — also has reclaimed many wetlands once lost due to agricultural draining. The program helps accomplish this mission by offering technical and financial assistance to private (non-federal) landowners to voluntarily restore wetlands and other fish and

ested in information for plant species and environmental conditions peculiar to wetlands in Pennsylvania.

During the first year (1995) of the study we exposed composite samples of wetland soils from a variety of plant types (trees, shrubs, herbaceous plants and mudflat areas) to four monthly water level drawdowns (April, May, June or July). We then counted the number of plants by species that became established during each monthly



RESEARCH has shown that seeds of certain natural plants, especially grasses, sedges, rushes and smartweed, require exposed moist soil or mudflats during the spring to germinate and grow. Manipulating water levels in wetlands creates an ideal environment for these plants. Shown here on the left is a relatively poor wetland for wildlife, while the wetland above has some productive wildlife habitat.

wildlife habitats on their land. The program emphasizes the reestablishment of native vegetation and ecological communities for the benefit of fish and wildlife in concert with the needs and desires of private landowners. As one can see, there is much potential for water level management to enhance wildlife habitats in Pennsylvania.

We recently completed a wetland plant study at the Pymatuning Wildlife Management Area to help fine-tune current and future wetland water level management in Pennsylvania. We were particularly inter-

drawdown.

During the second year (1996) of the study we exposed the same plant samples to four different water levels for the entire growing season. Water levels in 1996 were: 1) soil surface six inches above the water, 2) soil surface at water level, 3) soil surface six inches below water, and 4) soil surface 12 inches below water. Our results showed that for maximum plant establishment managers should begin to lower water levels in mid-April and end by early-June (Table 1). Follow-

Table 1. Plant densities (plants/yd²) and number of species for 16 combinations of year 1 drawdown month and year 2 water level (inches) at the Pymatuning Wildlife Management Area.

Year 2 Water Level	Year 1 Drawdown Month							
	Mid-April		Mid-May		Mid-June		Mid-July	
	Plants	Species	Plants	Species	Plants	Species	Plants	Species
+6	1,583	21	1,318	28	1,183	28	1,125	29
0	1,140	29	1,306	24	870	25	674	20
-6	998	22	807	28	434	18	494	18
-12	100	6	70	6	26	4	22	3

ing plant establishment and maturation (mid to late September), managers can begin raising water levels, but water should average no more than six inches above the soil. Water levels can then continue to rise during the second and third years following drawdown until the entire wetland is again flooded.

As the wetland is flooded, wetland birds are attracted to the newly available food resources. It's important to note that this practice provides both plant and animal foods. Examples of plant foods are seeds, tubers and leaves. Just as important are the invertebrates that quickly populate the newly flooded wetlands. These invertebrates provide a protein rich food source vital to egg production and growth and development of newly hatched waterfowl. The availability of invertebrate foods is also important for migrating shorebirds.

After several years of constant water levels, wetland productivity begins to decline, due to the exhaustion of the plant matter that provided the basis for the food web. Another drawdown cycle is once again in order.

Properly managing wetlands requires some initial background work such as setting goals and objectives, and deciding if a wetland should be artificially managed at all. There are many advantages to allowing natural events to dictate plant and animal responses. However, much of today's landscape has been highly altered by humans, and intensive management may be the best alternative to create quality habitat. Before forming and implementing a management plan, though, we recommend consulting a professional wildlife manager.

For successful management, managers need: federal and state permits if applicable, a dependable water supply, water control devices, proper soils and seed banks, and contours within a wetland that permit success. Water level management should be planned in accordance with wetlands in an area.

Properly managed wetland complexes will provide the entire realm of life requisites for the wetland community, not just for certain species or short periods of their overall life cycle, such as migration and wintering. Well-implemented wetland management can increase the productivity of the habitat, providing amazing and satisfying results for all. □



What I Learned from the Owls

By Bob Butz for Lou Wood

DOWN IN Jimson Hollow there are rabbits in every tangle of briars and under every pile of brush. The best time to go there is in October after a night of rain. The ground is wet then and good for stalking. I like to take my bow and a couple arrows, but I guess a single-shot .22 would be all right. But it would have to be old and worn a little, and I guess I don't have to tell you, but scopes aren't allowed.

The best thing to do is to find a deer trail — they're not hard to find — and follow it down into the hollow. You'll probably have to get down on your hands and knees in some places and in others you'll be down on

your belly. When you come upon any place that looks big enough to hide a rabbit, stop and look real close. Look for that little tuft of white that is a rabbit's tail, or that soft gray line that is the curve of a rabbit's back. Maybe you'll see its eye; that's what I always see first. The rest of the rabbit will appear like magic.

You have to be patient to hunt rabbits in Jimson Hollow. If you don't have patience you'll probably walk past every rabbit, and if you think you can go in there with a dog and a shotgun and come out with a limit, well,

you wouldn't be the first to try. Dogs get lost in Jimson Hollow. The brush swallows them up.

Men with shotguns are always looking for a running rabbit, so they don't see the ones that hold still or the ones that crawl so far into the tangles that even the light can't get to them. Half-way through Jimson Hollow the man with a shotgun will stop and whistle



STOP and look real close when you come upon any place that looks big enough to hide a rabbit. Spot a rabbit's eye and the rest of the bunny will appear like magic.

for his dog. If the dog is a beagle he'll hear it, and it will be on a rabbit, but it won't be in Jimson Hollow. The man will smile, fingering the safety on his pump, waiting for his dog to bring the rabbit back around. But after a while, when the baying of the beagle sounds as far away and as soft as the wind, he'll realize the dog isn't ever coming back around. He might even curse his dog for running deer. But it's not deer the dog is chasing. It's a Jimson Hollow rabbit.

I forgot to tell you, Jimson Hollow's younger rabbits do run, but only in straight lines, way out ahead of any hunter and always away from Jimson Hollow. If you don't have patience, all is not lost. Along with a rabbit or two, patience is the only other thing you can take from Jimson Hollow. You learn patience from owls. Learn to see like the owls and you'll find the sitting rabbits, not just in Jimson Hollow, but anywhere.

Once you learn what the owls have to teach, you'll probably leave the gun under the bed and hunt rabbits in Jimson Hollow with a bow. You'll know you're doing all right when the rabbits you find don't even know you're there.

The eye is the best thing to aim for on a sitting rabbit. Once you find it, look for something inside, like a tiny speck of light, and once you find that, concentrate on it until there is nothing else in the world. If you think about pulling the string to your face, or how the bow feels in your hand, you've probably missed even before the release. But if you don't think about any of it and don't remember any of it, your arrow, like the sound of owl wings cutting through the air, will slip through the hole in the brush and find the glint of the rabbit's eye.

After you've slipped the arrow back in your quiver, find your knife and take the rabbit to the nearest stump or fallen log. Pull some of the white belly fur and place it close beside. Now make a long slit where the fur used to be and take out what's inside. Set this atop the fur. It's something for the owls.

Now slip the rabbit into your jacket, or tie it with a strip of leather to your belt. If you're like me, you probably won't see any more rabbits after the first. Usually I'm walking too fast after that. I like the way the rabbit feels hanging there on my belt. The way it bumps against my leg at every footstep is something like a heartbeat. It's a subtle thing, and a pleasant thing, and it carries me the rest of the way through Jimson Hollow. □

FIELD NOTES

Persistence

ERIE — One day last spring I noticed many ducks and geese on a beaver pond on SGL 314, but the most interesting bird was an American bittern. The bird went through its routine of using its excellent camouflage to hide, but after a few minutes it went back to feeding. The bird found a large bullfrog and struggled to get it in position to swallow it. After a few minutes it finally succeeded.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Quite a Haul

BEDFORD — On National Youth Service Day (April 20), teacher Todd Wallace and students from Bedford Middle School picked up 1,180 pounds of trash on SGL 97.

— WCO DAN YAHNER, EVERETT

Good Review

BUTLER — I watched the PGC's new elk video for the first time and found it to be informative and well made. A long time in the making, it was worth the wait. Congratulations to all those involved in the production.

— WCO KEVIN THOMPSON, SAXONBURG

Lightning Never Strikes Twice?

When my power went out for a few seconds then came back on, and my neighbor, John Stutz, said he saw a flash near my house and heard a loud bang, we walked down to the transformer and found a dead red squirrel. It had apparently climbed the pole and touched two wires at the same time. I've lived here for 10 years and this has never happened before, but just after I typed this note, another squirrel did the exact same thing.

— LMO DALE E HOCKENBERRY, EAST BUTLER

Pranksters

ARMSTRONG — After taking a test at a First Aid/CPR class I left the room for a few minutes, and when I returned we began to correct the tests. While correcting mine, most of the answers were wrong, and I couldn't believe I had missed so many. When I told everyone in the room that they sure wouldn't want me to administer first aid to them, everyone started laughing. It seems instructors WCO Lucas and WCO Toward had erased and adjusted my answers while I was out of the room. You know what they say about payback, guys.

— WCO BARRY J. SETH, WORTHINGTON



Burning Rubber

JUNIATA — Charles Portsline of Mt. Pleasant Mills had settled down at the base of a tree during gobbler season when a chattering noise up in the tree got his attention. He spotted two bear cubs, and his amazement turned to horror when he heard cracking brush as a sow busted out of a thicket. The saying "feet don't fail me now" took on special meaning to Charles, and he returned later that morning to retrieve his equipment and shotgun.

— WCO DANIEL I. CLARK, HONEY GROVE



Third Time's a Charm

SCHUYLKILL — Marlin Donofrio of Pine Grove was hunting last spring when a bear emerged from a woods and began slapping around his three turkey decoys. Amazingly, this was the third time this has happened to Marlin.

— WCO STEVE HOWER, PINE GROVE

Wears Several Hats

CRAWFORD — Deputy Max Hebert serves with the 171st Air Refueling Wing of the Air National Guard and spent time in Kosovo. Sergeant Hebert is a true citizen-soldier, and we're glad he's back to again take up the fight for wildlife conservation.

— WCO DAVID MYERS, LINESVILLE

You Never Know

WAYNE — I was checking beaver dams last spring when I heard a tom turkey gobbling over and over again. Because the spring season had ended weeks earlier I was curious what had the gobbler so worked up. I finally found the tom strutting in a reverting field and noticed a black plastic trash bag caught in a multiflora rose bush that was flapping in the wind. With every little breeze the bag flapped and the turkey gobbled. I pondered selling my turkey calls and decoys and buying a roll of plastic trash bags.

— WCO FRANK J. DOOLEY, TYLER HILL

Hotspot

BRADFORD — Bears everywhere! I've had an awful lot of nuisance bear reports this past spring.

— WCO VERNON I. PERRY III, MONROETON

Looking Up

CUMBERLAND — In recent years there has been some concern about the dwindling turkey population in and around the Michaux State Forest. Prior to spring gobbler season, Deputy John Lynch was patrolling in the area, looking for illegal baiting activity, when he spotted 12 turkeys, nine of which had beards.

— WCO EDWARD B. STEFFAN, NEWVILLE

Too Much TV

My son Clay showed his 3-year-old brother, Cody, the turkey he had bagged and asked the youngster if he knew what it was. Cody promptly replied, "Sure, it's a turkey goblin."

— LMO JAMES DENIKER, SANDY LAKE



Iron Beak

MERCER — My neighbor — a lineman with the local electric company — told me a customer called about a woodpecker working furiously at a pole near his house. Nothing unusual, except that it was a steel pole.

— WCO DONALD G. CHAYBIN, GREENVILLE

Safe Haven

A landowner showed me a rabbit nest located on a well-drained mound of topsoil directly between two kennels full of hunting dogs. The location had saved the young rabbits from almost certain drowning in early April and had undoubtedly served as a deterrent to any would be predators. I'll bet there's a waiting list among the neighborhood rabbits for this location.

— LMO CLIFFORD E. GUINDON, BOSWELL

Might Not Taste as Good

BRADFORD — Vicky Ward stopped by our display at the Troy Founder's Day Celebration to show me a turkey Beanie Baby she bought for her husband, Gary. She wanted to make sure that Gary knew what a turkey looked like because he hunted nearly every morning of the spring season and never got a bird.

— WCO WILLIAM A. BOWER, TROY

Flora and Fauna

FULTON — While on a tree and flower identification walk on SGL 53, the 25 people in attendance got to see a yellow phase timber rattlesnake coiled just off the trail. Rattlers are not uncommon here and can be observed from a safe distance. I was pleased to find that peoples' attitudes about snakes have changed since the days of, "the only good snake is a dead snake."

— WCO STEPHEN A. LEIENDECKER,
BIG COVE TANNERY

Habitat

LANCASTER — I'm always asked why there are no pheasants. Lack of security cover is the biggest single factor limiting them here. At Muddy Run — a project owned by a utility company — 700 acres are intensely managed by the PGC. In the spring I saw a cock pheasant courting two hens and saw another cockbird in the next field.

— WCO LINDA L. SWANK, KIRKWOOD

Cat Burglar

BUCKS — The local police department contacted me about a bobcat that had set off an alarm at a residence. No charges were filed.

— WCO RICHARD E. MACKLEM, NEW BRITAIN



Ooops!

JEFFERSON — I came across a vehicle parked along a game lands road during gobbler season, so I waited for the hunter to come out. I no sooner turned off my vehicle when I heard a bird gobbling. I was enjoying listening to the bird's excited gobbles when a transmission came across the two-way radio, and in my haste to turn down the volume I accidentally hit the siren. To the hunter whose hunt I might have messed up, all I can say is that I'm sorry.

— WCO ROGER A. HARTLESS, BROOKVILLE

Fine Example

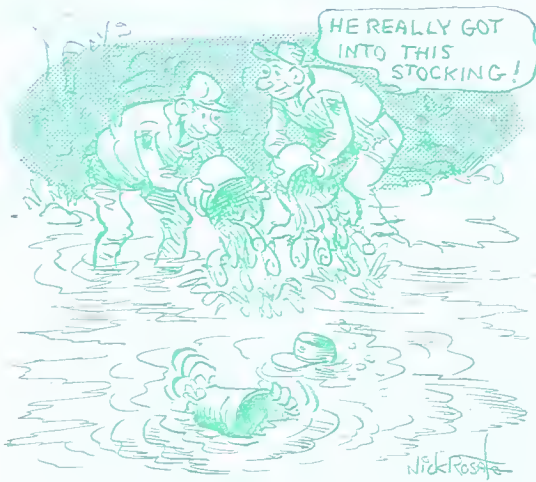
WASHINGTON — After all the abuse our deputy program took from the media last year, I'm glad to report that Deputy Michael Vosel Jr. was selected as this region's NRA Man of the Year. Mike has been a dedicated deputy for more than 36 years and has the respect of the entire community — even those he has cited — because of his even-handed enforcement of the law.

— WCO DOUGLAS E. DUNKERLEY, McMURRAY

Thanks, Guys

LYCOMING — After working for nearly two weeks straight I decided to take a day off, so I went around my district, shutting culvert trap doors, so as not to catch any bears that would require me to process on my day off. That evening, though, two of my trusting deputies checked one of the traps and, seeing that the door was down, reset it. You guessed it; they caught a bear that night and my day off went out the window.

— WCO TERRY D. WILLS, WILLIAMSPORT



Dying to Know

BERKS — Despite neighboring WCO Matt Teehan's many years of deputy experience, he was still a little "wet behind the years" last spring. Rumor has it that Matt didn't avoid all of the deep holes in streams when helping the Fish & Boat Commission stock trout. By the way, Matt was able to determine whether or not handcuff cases hold water.

— WCO DAVID BROCKMEIER, MOHNTON

Doesn't Take Much

After stacking pallets in a pile to create an artificial brushpile on game lands, Maintenance Supervisor Allen Anke noticed a rabbit immediately take shelter under them.

— LMO JOHN C. SHUTKUFSKI, DAMASCUS

Helping Beaks

DELAWARE — A flock of five or six turkey vultures can devour a dead deer in a day and a half. A group of these birds have taken up residence near my only deer pit and they really clean up. The birds make it easy for me to locate roadkills, too, and sometimes the load is lighter thanks to their feeding habits.

— WCO ROSE LUCIANE, EDMONT

Needs a Shave

SOMERSET — On May 20, during the gobbler season, I noticed my second bearded hen. This one, however, had 10 newly hatched poults with her.

— WCO JOHN G. SMITH, SALISBURY

Good Day, Mate

McKEAN — While sifting through some 12,000 applications for some individuals from New York who had illegally purchased antlerless licenses, I couldn't help but notice how far some people travel to hunt in Pennsylvania. I noticed applicants from Texas, California, Florida and Canada, but Luciano Quattrocchi took the prize. Mr. Quattrocchi hails from Banksia Park, South Australia, and I'm going to send him a year's subscription to *Game News*, so that he can enjoy the magazine "down under."

— WCO THOMAS M. SABOLCIK,
PORT ALLEGHENY

Out of Talon's Way

WYOMING — Jeff Gaydos watched in awe as a bald eagle swooped down on a Canada goose along the banks of the Susquehanna River. The goose ducked then took refuge on the water. Not wishing to tackle such a large bird in the water, the persistent eagle dive-bombed the goose in an unrelenting attempt to make it fly. The wary goose continued to evade its attacker, however, by staying afloat and repeatedly crouching as the eagle closed in.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Wrong Move

BEDFORD — One evening last spring I watched a red fox sitting next to a field, looking for mice. Nearby a doe and fawn fed, neverously keeping a wary eye on the fox. When the fox pounced on a mouse the doe charged at full speed, bowling the canine over and then chasing it out of sight.

— WCO TIMOTHY C. FLANIGAN, BEDFORD

Way to Go!

Last spring 13 volunteers picked up 1,200 pounds of trash, including 10 tires, on SGL 117 in Washington County. Imagine what could have been picked up if we had more folks helping out. Too bad there are more litterers than volunteers.

— LMO GEORGE J. MILLER, LIGONIER

Out of Fang's Way

UNION — I was patrolling alone and way back in on Paddy Mountain when a rattlesnake struck at and just missed my foot. I was surprised to run into a rattler because it was fairly cool, and I was also surprised — and extremely glad — that the snake missed its mark.

— WCO BERNARD J. SCHMADER, MILLMONT

Rare

CLINTON — Recently I photographed an albino chipmunk. Its tail fur was so light that the tailbone was distinctly visible, and the five stripes on its back — normally almost black — were a light sand color. The rest of the critter's fur was snow white and it had dark red eyes.

— WCO JOHN WASSERMAN, RENOVO

Noticeably Absent

BERKS — I noticed turkeys, including four longbeards in a field, nearly every day during the spring season while patrolling SGLs 80, 110 and 280. Most of the people I encountered in my travels there, however, were hikers, birders or mountain bikers, not hunters as I had expected.

— WCO ROBERT L. PRALL, WEST LAWN



Hog Bear

NORTHAMPTON — Despite the record bear harvest last season we've been receiving more nuisance calls and reports of bears than ever. And several bears that we trapped in the spring weighed between 300 and 400 pounds, with one bruin going more than 500 pounds.

— WCO BRADLEY D. KREIDER, CHERRYVILLE

Wasn't Even Thanksgiving

INDIANA — I received a report about a bear eating a family's turkey, and as I dialed the caller's number I prepared myself for an earful about the tragic loss of a family pet. I was relieved, however, to learn that the turkey had been a Butterball thawing in a cooler on the back porch.

— WCO PATRICK L. SNICKLES,
MARION CENTER

Look Before You Shift

LUZERNE — I left the door of my vehicle open while stretching my legs one day, and when I got back in I noticed a yellow warbler perched on my shift lever. Deputy Orbin and I waited a few moments until the bird flew off, then when I put the vehicle into drive, I felt a wet substance on my hand. At least the rest of the day went well.

— WCO JOSEPH G. WENZEL, BEAR CREEK

25th Class of trainees enrolled

THE 25TH CLASS of wildlife conservation officer trainees reported to the agency's Ross Leffler School of Conservation this past June. The trainees (26 men and one woman) were selected through a series of written tests, interview boards and physical examinations and will undergo nearly nine months of training, including field duty with veteran officers, before they graduate in March.

Training subjects include wildlife management, law enforcement, legal procedures, physical fitness, firearms proficiency, unarmed self-defense, habitat management practices, computer concepts, conservation education and public relations.

Members of the 25th class are: Harold L. Cole Jr., Hershey; Randy R. Crago, Meadville; Richard O. Danley

Jr., Havertown; Darren J. David, Wrightsville; William F. Dingman III, Doylestown; Robert A. Einodshoffer, Huntingdon; Mark S. Fair, Red Lion; Gary M. Fajak, Brentwood; Matthew M. Grebeck, Huntingdon Mills; Stephen T. Hanczar, White Haven; Eric R. Horsh, Chambersburg; Stephen J. Kish, New Tripoli; Harold J. Malehorn, Dauphin; Rodney P. Mee, Abbottstown; Denise H. Mitcheltree, Renovo; Mario L. Piccirilli, Franklin; Victor E. Rosa, Fleetville; Mark S. Rutkowski, Old Forge; Michael A. Schuller, Rouseville; Eric L. Seth, Clarion; Gerald L. Smith, Sayre; Wesley N. Stauffer, Elizabethtown; Dustin M. Stoner, Brookville; Peter F. Sussenbach, Blakeslee; William M. Williams, Pine Grove; Brian E. Witherite, Latrobe; and Jonathan M. Wyant, Montoursville.

Regulations for disabled hunters finalized

AT THE JUNE meeting, the Game Commission adopted regulations allowing hunters with certain disabilities to use all-terrain vehicles (ATVs) on designated state game land roads. The agency will designate roads that will be open to ATVs operated by permitted disabled hunters. The roads will be open two weeks before the start of archery season until the close of muzzleloader season and during spring

gobbler season. ATVs must be registered with the state Department of Conservation and Natural Resources and display the universal access symbol for the disabled. Towing vehicles must display a disabled placard.

Permitted persons may drive no more than 100 yards from the nearest road edge to establish a hunting location. Speed may not exceed 10 mph. ATVs may not be used to traverse

waterways, wet areas and food plots.

To determine interest for this initiative, surveys had been mailed to more than 5,000 persons who currently hold an agency-issued Disabled Person Permit. Slightly more than 2,000 responded. More than 90 percent reported buying a hunting license in the past two years. A majority said they would use ATVs on game land roads if allowed.

Although no state game land roads have yet to be designated as open for disabled access, survey participants were asked which counties they'd prefer to hunt in. The top five were Huntingdon, Centre, Potter, Bradford and Lycoming.

The top five state game lands respondents were interested in hunting in were SGL 13 in Sullivan and Bradford counties; SGL 44, Elk and Jefferson counties; SGL 24, Clarion and Forest; SGL 57, Luzerne and Wyoming; and SGL 211, Dauphin, Schuylkill and Lebanon.

Selection of state game land roads to be opened will be made later this year, and the roads will be prominently marked.

Working with the Game Commission in this endeavor were DCNR's bureaus of State Parks and Forestry, Pennsylvania Fish & Boat Commis-

sion, Pennsylvania Sportsmen for the Disabled Inc., Unified Sportsmen of Pennsylvania and other interested individuals.

Three tracts added to SGL system

The Commission authorized the acquisition of three tracts of lands totaling 186 acres. The parcels are 66 acres adjacent to SGL 291 in Warren County's Spring Creek Township for \$25,000; 70 acres adjacent to SGL 285 in Beaver County's Darlington Township for \$28,000; and 50 acres adjacent to SGL 130 in Mercer County's Sandy Lake Township for \$16,000.

Donations received

The Game Commission received \$6,000 in donations from three organizations for programs and studies. These included \$4,000 from the Susquehanna River Wetlands Trust and \$1,000 from the Lehigh Valley Chapter of Safari Club International to help finance research into factors causing the decline of the Atlantic population of Canada geese nesting in northern Quebec.

In addition, the Commission received \$1,000 from the Conservation Officers of Pennsylvania (COPA) to help finance WILD Action grants in the Project Wild program facilitated by the Game Commission and educators statewide.

In other action, the commission:

- Recognized George Miller's last official meeting by presenting him with two fine art prints for serving as a commissioner 11 years. He was board president twice.
- Tabled a plan to provide \$15,385 annually for the next four years to the Northeast Wildlife Damage Management Research and Outreach Cooperative.
- Adopted language to remove restrictions on mourning dove hunting hours, paving the way to allow dove hunting the entire day. In past years, the early dove season was restricted to those hours from noon to sunset. The 1999 dove seasons and hours will be set later this year under U.S. Fish & Wildlife Service guidelines.
- Agreed to contribute \$2,000 to the Cooperative North American Shotgun-

ning Education Program, which aims to develop educational programs and materials to assist state agencies in helping waterfowl and upland game bird hunters reduce wounding losses.

- Authorized \$8,000 in funding for construction of a rifle range on SGL 119, Luzerne County.
- Adopted language changing application deadlines for hunting on controlled goose hunting areas at Middle Creek and Pymatuning wildlife management areas. Middle Creek controlled goose hunting area applications now must be received no later than the second Tuesday in August; Pymatuning by the second Saturday in September. Middle Creek controlled goose hunting area drawings will be held the second Wednesday in August; Pymatuning, the third Saturday in September. Both drawings are open to the public.
- Announced the agency will hire Gerald Feaser as the agency's first press secretary. Feaser worked as Gov. Tom Ridge's assistant press secretary.
- Received a report from PGC Law Enforcement Director J.R. Fagan detailing that the number of deputy wildlife conservation officer has dropped to 750, the lowest point in decades.
- Announced the agency plans to hire a full-time webmaster to design and update the agency's Internet homepage.
- Announced a new telephone system will be installed at the agency's Harrisburg headquarters to provide the public with more efficient and easier means of communication with PGC personnel.
- Announced the next Game Commission meeting will be August 16 and 17 at the agency's Harrisburg headquarters. Meetings on both days will begin at 8:30 a.m.

Middle Creek/Pymatuning programs & art show

THE 14th annual Middle Creek Wildlife Art Show kicks off this month's activities at the Middle Creek Wildlife Management Area.

The show runs August 6, 7 & 8 and will feature 30 artists displaying and selling their work. Hours for this extremely popular show are from noon to 8 p.m. on Friday, the 6th; 9 a.m. to 6 p.m., on Saturday, the 7th; and 9 a.m. to 5 p.m. on Sunday, the 8th.

On August 18 & 19, WCO Mike Doherty will present a program on what it's like to be a Pennsylvania wildlife conservation officer. Many *Game News* readers will no doubt remember Mike for writing the "Looking Back" column in 1996, about his experiences as a WCO in Chester

County. Since then Mike has transferred to northern Dauphin County. Don't miss this chance for an insider's view of what wildlife law enforcement in Pennsylvania is all about.

Programs begin at 7:30 p.m. The Middle Creek visitors center is south of Kleinfeltersville.

At Pymatuning, an historical look at the Pennsylvania Game Commission will be presented on August 14. On August 15, Pennsylvania's elk herd and the recent trap and transfer program will be offered, and on August 28, the black bear will be featured.

Programs will be held at the Pymatuning Visitors Center, along Hartstown Road in Linesville, and will begin at 2 p.m.



DAN LYNCH, right, wildlife education specialist for the Game Commission, thanks Joe Madden, president of the Delaware Valley Chapter of Safari Club International, for the group's donation of six Urban Wildlife Kits, which will be used to increase wildlife education efforts in the Philadelphia area. Each kit contains wildlife pelts, skulls and other useful educational materials teachers of grades K through 12 can use to teach wildlife education.

Hunting incidents down, fatalities up

A RASH of fatal shootings in 1998 blemished an otherwise relatively safe hunting year. Eight persons were killed and 83 were injured. Statistically, the 91 hunting related incidents make 1998 one of the safest years since the Game Commission began recording incidents in 1915.

"I'm pleased that Pennsylvania hunters have kept hunting related shooting incidents below 100 for the past seven years, and that last year's 91 accidents rank as the third lowest total on record," noted Keith Snyder, Hunter-Trapper Education Division chief. "But there's no consolation in these statistics when eight are fatalities, particularly when we had only one fatal incident in 1997."

Most of the eight fatalities were a direct result of careless handling of firearms. Two were self-inflicted, two involved a firearm in a dangerous position, one was a result of an accidental discharge, and one was a result of slipping/falling.

The safest hunting year on record was 1993, when 85 persons (includ-

ing 4 fatalities) were shot. The incident rate that year was 7.37 per 100,000 hunters.

In 1998, the incident rate was 8.57. Most of the incidents occurred during the big game seasons: deer, 32; wild turkey, 19; and bear, 1. Other leading categories were rabbit hunting, 13; pheasant, 10; and squirrel, 8. The average age of persons causing these incidents is 32 years with 19 years hunting experience.

The most common shooting incident was in-the-line-of-fire, 30; followed by mistaken for game, 22; accidental discharge, 12; sporting arm in dangerous position, 8; ricochet, 6; slipped and/or fell, 5; stray shot, 4; and dropped sporting arm, 4.

"It's important to keep hunting related shooting incidents in perspective whenever you're measuring their significance or making comparisons," Snyder noted. "Eight fatalities in 1998 certainly isn't the direction I want us to head, but it's considerably better than the 72 fatalities Pennsylvania recorded in 1931."

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

1998 Hunting Incident Report

Incident Summary

Fatal

◆ Self-Inflicted	2
◆ Inflicted by others	6

Non-Fatal

◆ Self-Inflicted	19
◆ Inflicted by others	<u>64</u>

Total 91

RATE PER 100,000 HUNTERS

◆ FATAL:	0.09
◆ NONFATAL	<u>8.59</u>

Total 8.68

Sporting Arm Used

	F	N-F	T
Shotgun	1	54	55
Rifle	7	22	29
Revolver	0	5	5
Muzzleloader	0	1	1
Bow	0	1	1

Species

	F	N-F	T
Deer			
Regular Season	5	25	30
Archery	0	1	1
Muzzleloader	0	1	1
Turkey			
Spring	0	11	11
Fall	2	6	8
Bear	0	1	1
Pheasant	0	10	10
Squirrel	0	8	8
Rabbit	0	13	13
Grouse	0	2	2
Woodchuck	1	2	3
Dove	0	1	1
Coyote	0	2	2

Ages Of Persons Inflicting Injury

	F	N-F	T
12 to 15 years of age	2	10	12
16 to 20 years of age	2	4	6
21 to 50 years of age	4	44	48
Over 50 years of age	0	16	16
Unknown	0	9	9

Weather Conditions

	F	N-F	T
Clear	4	61	65
Overcast	3	15	18
Fog	0	1	1
Rain	1	5	6
Snow	0	1	1

Light Conditions

	F	N-F	T
Dawn	0	4	4
Daylight	7	75	82
Dusk	0	3	3
Dark	1	1	2

Mistaken For Game - Species Hunted

	F	N-F	T
Deer	1	0	1
Turkey			
Spring	0	11	11
Fall	2	5	7
Bear	0	1	1
Squirrel	0	1	1

Mistaken For Game - Distances

	F	N-F	T
0 to 25 feet	0	0	0
26 to 75 feet	0	2	2
76 to 150 feet	1	15	16
151 to 300 feet	2	1	3
Over 300 feet	0	1	1

Cause Of Incident

	F	N-F	T
Sporting arm dangerous position	2	6	8
Accidental discharge	1	11	12
Stray shot	0	4	4
Ricochet	0	6	6
Line of fire	1	29	30
Slipped and/or fell	1	4	5
Dropped sporting arm	0	4	4
Mistaken for game	3	19	22

Place Of Incident

	F	N-F	T
Field	3	24	27
Woodland	5	56	61
Vehicle	0	2	2
Road or Highway	0	1	1

HIP reminder

SINCE 1996, all migratory game bird hunters 12 years of age and older have been required to purchase a Migratory Game Bird License (HIP card). This license is required not just by those who hunt waterfowl, like the federal duck stamp, but also by those who hunt mourning doves, American woodcock and other webless migratory game birds.

This license was developed to provide the U.S. Fish and Wildlife Service with a means to survey hunters, so harvest rates and other important information on migratory game bird hunting can be obtained.

It's become apparent, though, that many hunters are not purchasing this

card. Using Game Commission Game-Take Survey data, it appears that while 90 percent of the waterfowlers have been purchasing HIP cards, only 60 to 70 percent of the mourning dove and woodcock hunters are.

Reminder: all persons 12 and older are required to have a Migratory Game Bird License to hunt migratory game birds. These licenses are available at all hunting license issuing agents. They cost \$3 for residents and \$6 for non-residents.

This license was developed to provide the best migratory game bird hunting possible, but for the program to work, all hunters need to participate.

Deputies honored

TOM MARCINKO, a new PGC deputy from Clearfield County, received this year's "Conservation Educator of the Year" award from the Pennsylvania Wildlife Federation.

Tom, shown here with PWF Executive Director Joan Clippinger, has developed an outstanding environmental science program at Moshannon Valley Jr.-Sr. High School. Among his many accomplishments, Tom has led his student team to the district championships for the envirothon for six straight years. Perhaps reflecting Tom's devotion to conservation education more than anything else is that from a school that graduates less than 70 students a year, in just the past three years, more than 30 have gone on to major in environmental careers.

DEPUTY JOE WISNIEWSKI, page 46, was recently honored by the



Erie County Detectives and Office of the District Attorney for his years of dedicated law enforcement in the county. Deputy Wisniewski has been an active deputy for more than 23 years, and is involved in pheasant stocking, seedling sales, exhibits, bea-

ver tagging, Hunter-Trapper Education and probably every other agency program. He is particularly noted for his thorough law enforcement investigations.

In nominating officer Wisniewski for the award, WCO Larry Smith said, "Joe has always conducted himself with the highest standards, and through 23 plus years of service, he still remains active and full of enthusiasm."



Bluebird enthusiast

DONALD YOUNG of Quaker-town is an avid hunter and nature lover who has always loved the outdoors. Since retiring eight years ago, he's been busy building bluebird boxes and other bird houses. So far he has built about 3,000, and all but about 200 he has given away, mostly to schools, groups and individuals in the Southeast Region, but some to people as far away as Oklahoma. He has donated more than 200 to the Game Commission.

Donald also maintains a trail of 175 boxes, where last year about 55 pairs of bluebirds, along with many tree swallows, wrens and flying squirrels used the boxes.



REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187
Southwest — 724-238-9523
Northcentral — 570-398-4744

Southcentral — 814-643-1831
Northeast — 570-675-1143
Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

"Chestnuts, Come Home"

THIS RIGHT HERE is called Chestnut Ridge," the speaker said, "but you'll not find a live, full-size native chestnut tree here or anywhere else in the eastern United States. Pathetic sprouts still exist, but the regal hardwood is no more."

Like the mythical Phoenix, the American chestnut may be about to rise again. Efforts are being made to impart the blight-resistance of the Chinese chestnut, a shrub-like tree, to the native American chestnut. Previous crosses produced edible nuts and leaves each year, but grew with the cracked bark and other symptoms of the blight. They were sick in their American chestnut part, but usually not sick enough to die. These simple crosses also could not give the American chestnut back its lofty, straight-trunked status; they weren't substitutes for the native tree.

Through the efforts of individuals, cooperating government agencies, such as the Pennsylvania Department of Conservation and Natural Resources, and especially the work of the American Chestnut Foundation, confident predictions are being made that the American chestnut will reemerge in the next century as a forest tree. It won't be exactly the original; a tiny part of it, the trait of blight resistance that will allow it to survive, will have come from Chinese chestnut ancestors. But it will live, and it will stand tall.

Those who can truly say they miss the chestnut trees of Penn's Woods are gone, or nearly all gone, themselves. Only photos, artwork and memoirs recall how im-

portant the chestnut was to those in the eastern U.S. These earlier accounts agree the American chestnut was considered a great gift to both people and wildlife.

The American chestnut was called "the eastern redwood," for its size and utility. Growing 100 feet high, 6 to 8 feet in diameter, and living 500 to 600 years, it deserved that name. At the turn of the century, chestnut was the dominant hardwood in this part of the country and, according to the American Chestnut Foundation, at one time more than 400 billion of the large trees graced the eastern forests.

American chestnuts were a veritable "staff of life." They literally fed, clothed and housed the population. The nuts not only fed the people directly, but also fed the livestock they raised and the game they shot. The wood was used for everything from fencing and tool handles to firewood, furniture and home construction. Sales of nuts and wood provided income, which clothed and otherwise sustained families. Even better, when a chestnut was felled, that wasn't the end of the tree; it regenerated well from the cut stumps.

As is typical of we humans, people tried to improve on an already good thing. Not having the advantage of hindsight that we do, they can hardly be blamed.

In the late 1880s, Chinese or Japanese chestnut nursery stock was imported to the United States for hybridization, to improve the size of the nuts of the American chestnut. Although a fine timber tree, what the American species lacked to make it "per-

fect” was the nutmeat. The annual mast crop was sweet, rich in proteins and oils, but the chestnuts were on the small side. The Chinese and Japanese chestnuts, despite being shorter, shrubbier trees, grew larger nuts. So why not combine the two?

Unknown to those well-meaning importers, the foreign trees brought in the blight, actually a fungus that attacks the chestnut through any opening in the bark. The fungus digests a living sheath between the bark and the inner wood, the cambium layer. The tree is eventually girdled, something like slicing its veins and arteries, and killed. The Asian trees had evolved with the blight and developed resistance to it, but the American chestnut was “completely susceptible,” according to the foundation spokesman.

Once the blight arrived, the end of the American chestnut came fast. The disease was discovered in 1904 on trees in the Bronx Zoo, in New York. By 1908 it was in Pennsylvania. A scant three or four years later, 80 percent of the chestnuts in east-

ern Pennsylvania were infected. By 1930, all of Pennsylvania’s trees and most of the chestnut’s range had the blight. By 1950, the chestnut was gone as a forest tree. Not knowing that wind borne and animal-carried spores, such as birds, moving from tree to tree, were spreading the disease, heroic but doomed efforts, like clearing firebreaks in the forest, were attempted.

What’s left today? A few old survivors that seem to hang on with some innate blight resistance, according to the American Chestnut Foundation. If you’ve spent time roaming Penn’s Woods, you’ve probably seen American chestnuts and may have even seen them bear nuts. Normally existing today as short sprouts or slender young trees, the chestnut is reminiscent of beech, to which it is related. The leaves look like longer, more slender, more pointed and more “toothed” beech leaves. If in doubt, look on the underside of the leaf for the “hairs” along the mid-vein, to determine if it’s really American chestnut.

While the original tree was girdled (the top section killed off) by the blight, the root system below can remain viable. Even after many years, some are still sending up hopeful sprouts from the old root collar. Chestnuts need sun to grow, and nowadays many can be found in openings created by the gypsy moth caterpillar-kills of a few years ago. These trees, just about ready to produce nuts, are already showing signs of the blight, such as slit, oozing bark and will be killed back to the ground as before, only to resprout again.

Because the sprouts are really just the same old trees, they are just as susceptible to the disease. They don’t have the potential for developing resistance to the blight, as might happen by the mix of genes when one tree’s pollen fertilizes another’s flower.

That’s where the American Chestnut

Bob Steiner



THIS YOUNG chestnut tree is not long for the world. Its bark is already split from the chestnut blight.

Foundation comes in. By controlling which chestnut breeds with which, as is done in horticulture in developing plant varieties for the garden, or in animal husbandry, like the AKC breeds, the foundation is already very close to having created an American chestnut that's blight resistant.

The American Chestnut Foundation, based in Bennington, Vermont, was formed in 1983 to try to bring back the American chestnut. In 1989 it began a breeding program in Virginia, using the backcross method. That program has now spread to Pennsylvania, and the state has its own chapter of the foundation (800 East King St., York, PA 17403; 717-852-0035; e-mail pachapter@acf.org). The Pennsylvania project includes chestnuts that are in some stage of the backcross process on private land and on the Moshannon State Forest.

At the seminar in which American Chestnut Foundation speakers explained their efforts, Dr. Bob Leffel of the Pennsylvania Chapter detailed how backcrossing is done and why the group is so confident they can bring back the tree as a forest component and not just a yard oddity.

"This is planned parenthood for chestnuts," said Leffel. "It's that simple and that difficult."

The chestnut is self-sterile; the flowers must be pollinated by another tree. Performing the specific pollinations to control the outcome is tedious; the female flowers are covered with a gauze bag and the pollen is applied manually. First in the breeding process, American chestnuts showing some blight fighting ability were crossed with Chinese chestnuts. The hybrid offspring were inoculated with the blight, and those that were resistant were backcrossed with "full-blooded" American chestnuts.

Three backcrosses are made, inoculated, watched, and the resistant individuals are kept. The last two generations are intercrossed. It may seem complicated to anyone but a plant geneticist, but the important result is that by the end of six genera-

tions, the trees should be 100 percent resistant to the blight and have 99 percent American chestnut characteristics. Only blight resistance should remain from the Chinese ancestor.

Time, and lots of it, will show if the backcrossed American chestnut will have the lofty stature of the original forest tree, and not the shorter, bushy look of the Chinese, but those in the project are confident it will. About six years are required for a generation, says Leffel, and the project currently is in the third backcross stage. That means the hybrids are already about 94 percent American chestnut in character. Leffel, who has worked professionally developing agricultural crops, says just two pairs of genes are thought to be involved in blight resistance.

To breed a chestnut that will be adapted to Pennsylvania's forests, the foundation is using "donor" trees from this state, including a big survivor in York County. And it's still looking for the "champion" Pennsylvania chestnut tree, to use in breeding.

When can we expect the "new, improved" version of the American chestnut? That day could come sooner than you think, says Leffel, in about 10 years. Then an experimental release will be made, with trees going first to American Chestnut Foundation members (join by contacting the Pennsylvania chapter). Afterward, as nursery stock numbers are built up, the trees will go to others, including state forests and game lands.

We may not be living in the time frame to see the American chestnut come back as a major part of Pennsylvania's forests; we may never stand "under the spreading chestnut tree." We are living, instead, in perhaps the most exciting era of the chestnut's saga. Our grandfathers saw what they thought was the end of the American chestnut, and our children and our children's children may know the chestnut as just another tree in the woods. But we're here on the threshold where the dream of a reborn chestnut is becoming reality. □

Behind the Badge

By Roger Hartless

Jefferson County WCO



It Makes You Wonder



IT WAS Wednesday during the first week of buck season, and I had a stack of paperwork on my desk that needed to be sorted, filed or sent to the region office. I had intended to get to the bottom of the pile, get caught up on some phone calls and then patrol in the afternoon. Around 11 o'clock, though, the phone rang. It was dis-

patcher Bill Elliott from the Northwest Region office. Bill told me about a couple of possible violations.

The first had to do with an individual who an anonymous caller had said was a nonresident who was hunting with a resident license.

The second incident was about an ATV

that a member of the Brockway Sportsmen's Club had seen on club property. The property is signed up in the commission's Safety Zone program, and club members had erected a gate on the entrance road to keep out roadhunters and litterers. Evidently, the ATV had gone around the gate. My paperwork would have to wait a while longer.

I called Deputy Everett Neill and asked him to meet me at my office. I was able to get Deputy Bob Salizzoni by radio. Bob said he was already out patrolling, so he would wait by the club's gate until I got there or until the ATV came out. Deputy Neill showed up and we left for Brockway. Along the way I radioed Waterways Conservation Officer Rick Valazak. Rick is a big help to my deputies and me during the hunting seasons, and he was not far from Brockway. We arranged to meet in town and then all go check on the ATV.

Before we got to Brockway, though, Deputy Salizzoni radioed that he had talked to the person who had originally called about the ATV. The caller had unlocked the gate for us, so we could now drive back to the ATV. I picked up Rick in Brockway and headed for the club property. Finding the ATV was not a problem; it was parked in an old strip-mined field, but there was no one around. I suspected that the person responsible for it was probably hunting somewhere on the neighboring game lands and wouldn't be back for it until late in the afternoon. Deputy Salizzoni said he would watch the ATV and radio me if anyone came back for it.

Rick Everett and I then went to check on the nonresident hunting with a resident license. We went to the camp where the

informant said the nonresident hunter was staying but found it closed up. If there were anything to this report we wouldn't be able to do anything about it until the guy came back to hunt, which probably wouldn't be until the weekend before doe season.

We headed back to Brockway, and on a hunch I checked the hunting license issuing agents there to see if the nonresident we were looking for had possibly bought his license in Brockway. Unbelievably, I found the individual's license application at the first place I stopped. The individual had actually bought a nonresident license. Oh well, at least we checked it out. We still had the ATV to deal with.

We went back to meet Deputy Salizzoni.

Bob said that all was quiet. I parked my vehicle on a high spot overlooking the field where the ATV was parked. Deputy Neill stayed with the vehicle, while WCO Vale and I went to look for the ATV operator on foot. We found nothing, but Deputy Salizzoni, searching in another direction, found a Chevy Blazer with out-of-state plates also parked on the club property. It also had to have gone around the gate to get in.

Rick and I started back toward my vehicle, and when we got to where we could see the ATV, Rick noticed an individual walking from the woods toward it. The individual wasn't carrying a rifle and wasn't wearing any fluorescent orange on his chest or back. Sensing something wasn't right, Rick and I quickly headed for the ATV, hoping to get there first. Luckily, it was a tie.

We identified ourselves and asked the man what he was doing. He said he and a hunting partner had found a dead deer by

What they had intended to do with the deer that had been dead for some time was anybody's guess. We figured they just wanted to be able to say that everyone got a deer.

a small stream just inside the woods. The deer had been dead for several days, but they wanted to take it anyway.

Rick and I noticed blood on the front and back carrier racks on the ATV and asked about it. The man said he had been hunting in this same area on Monday, the buck season opener, and that an older guy was dragging a deer out, so he offered to help by hauling it to the guy's car.

"That was certainly a nice gesture," I said, "but how did blood get on the front and back of the ATV?"

He said the deer fell off the back on the way up the hill, so they moved it to the front. I asked if he had taken a buck yet, and he said he hadn't. When asked where his gun was, he said he left it with another guy he was hunting with, who was down by the stream with the deer. I then asked where his fluorescent orange vest

was. He said that he was sweating from dragging out the deer and needed to shed some clothing, so he took off the vest.

Rick and I went down to check the deer. It had been dead since at least opening day, as it was already green and smelled pretty bad. Neither of us could believe that anyone would even gut the deer let alone eat it. We checked the other individual's license. It still had the deer tag attached, and he claimed he hadn't killed a deer either. We explained to the two individuals that neither of them lawfully killed the deer they claimed to have found, it wasn't tagged by anyone, and therefore, they couldn't possess it. I asked the two where they were staying; the information on their licenses said they were from out of state. They explained that their family once had a camp near Brockway, and they still come to the area to hunt. They were staying at a

motel in Brockway, as long as the weather and their money held out. After being a WCO for some time, intuition tells me when something just isn't right.

We got the two individuals and the deer back to their ATV and asked if they, or anyone staying with them at the motel, had already killed a deer. They said they had not. I advised them that if that was true, fine, but if I discovered that they had an untagged deer at the motel, they would be

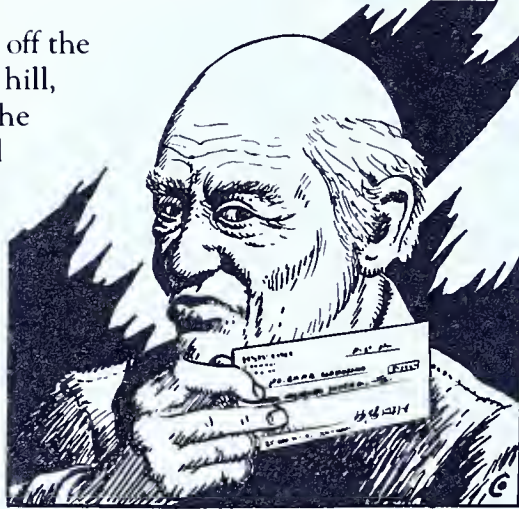
in serious trouble. I could see the hesitation in their eyes, but they stuck to their story.

Things went downhill for them in a hurry, though, because only minutes later, two more hunters came out of the woods. I met them half-way and took one

aside. I told him that I understood they had some deer back at the motel and the response I got was, "yeah, two." The other guy's story was even better. He told me there were three deer there, and that they were in a trailer parked behind the motel.

I got in touch with a couple other deputies and sent them to the motel. Sure enough, they found three untagged deer covered with a tarp in a trailer behind the motel. We still needed one more guy, the one who owned the Blazer Deputy Salizzoni was watching. We decided to take everyone, along with the dead deer they had found, to the Blazer and wait for the last guy.

The deer at the motel were in my district, but after talking with the deputies I learned that they had been killed in Elk County. I had the Northcentral Region Office contact WCO Dick Bodenhorn and



ask him to meet me because the deer were taken in his district.

In the meantime, the owner of the Blazer came out of the woods, so we now had everyone involved. As it turned out, three out of the five were related to each other, and all five of them had been hunting together in this area for the past three days. Most of them traveled back and forth in the Blazer, but one of them would ride the ATV to and from the motel in case they needed to haul out a deer. None of the deer they killed were tagged, nor did they intend to tag them because they planned on returning in muzzleloader season.

WCO Dick Bodenhorn arrived, along with supervisor Ron Stout. Because everyone involved was from out of state, fines would have to be paid, or collateral would have to be posted before the appropriate magistrate, prior to them being released from custody. The fines amounted to

\$3,700. Coming up with that kind of money, we thought, would be a problem, until we learned that the father of several members of the group was back at the motel, unable to hunt because of a medical condition. He had enough money in his checking account to cover the fines, keeping everyone out of jail.

We spent the next hour or so writing citations, and once finished, the group made a trip to the magistrate's office in Johnsonburg to plead guilty and pay their fines. The deer were confiscated, but they were allowed to take all of their hunting equipment with them.

What they had intended to do with that smelly, dead deer is anybody's guess. The only thing we could figure was that they just wanted to be able to say that everybody went home with at least one deer. As it turned out, though, they went home with no deer and a lot less money. □

Fun Games — By Connie Mertz

Duck Quest

Match the letter of the species of duck that best fits the statement on the left. The correct answers will spell what's important to all waterfowl.

- | | | | |
|---------|---|----|-------------------|
| 1. ____ | World's most common duck. | S. | Bufflehead |
| 2. ____ | Anticipates danger better than most ducks. | A. | Green-winged teal |
| 3. ____ | Identified by long pointed tail. | D. | Canvasback |
| 4. ____ | Also known as spoonbill. | W. | Mallard |
| 5. ____ | Smallest duck in North America | E. | Black duck |
| 6. ____ | One of the most beautiful ducks in the world. | T. | Pintail |
| 7. ____ | Largest and fastest duck in North America. | L. | Shoveler |
| 8. ____ | One of the smallest diving ducks. | N. | Wood duck |

answers on p. 64

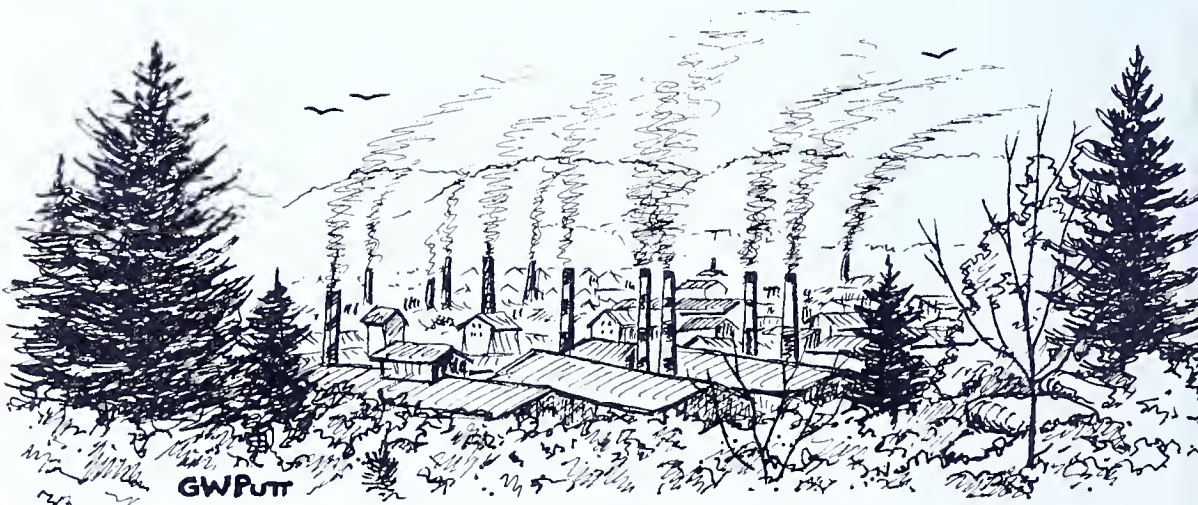
Dropping Acid on Our Forests

Prematurely dying trees first appeared on the highest mountains in the Appalachians. Seventy-five percent of the red spruce on Camel's Hump in Vermont, and 80 percent of the red spruce on Mt. Mitchell in North Carolina are dead. In fact, nearly half of all red spruce trees at high elevations, from the Green and White Mountains of New England, through the Adirondacks of New York, to the Blue Ridge, Balsams and Smokies of the South, have died in the last 15 years," writes Chris Bolgiano in her excellent book *The Appalachian Forest: A Search for Roots and Renewal*. "That's because," she says, "acid keeps dropping on the Appalachians — acid precipitation caused by the burning primarily of coal and oil in power plants, smelters, factories and automobiles."

Emissions from these sources contain sulfur dioxide and nitrogen oxides and are

carried on prevailing winds, often drifting hundreds of miles before they are dropped on the land as rain, sleet, snow or fog. Although the resulting sulfuric and nitric acids are partially buffered by alkaline minerals, such as calcium and magnesium in the soil and air, acid precipitation washes those minerals out of the soil faster than they can be replaced by the weathering of rocks.

Acid precipitation also leaches toxic metals — particularly aluminum — from the soil. While calcium and magnesium are necessary to grow healthy trees, aluminum destroys their root hairs, so the trees are unable to absorb water and nutrients. Because wind rising over mountains causes the moisture within it to cool and condense into clouds, the higher the mountain, the more acid precipitation it receives. That's why trees began dying at higher elevations.



Acid fog is particularly deadly. Mt. Mitchell is socked in for as many as 70 days a year. This means, according to scientist Orié Loucks in *An Appalachian Tragedy*, "that every part of every tree is bathed in the sour oxides of nitrogen and sulfur. In winter the effect is even more destructive. The dew freezes, holding fast against the needles and branches week after week. North Carolina State University scientists have found rime frost on Mt. Mitchell with a pH as low as 2.1, somewhere between battery acid and lemon juice."

Loucks concluded, in a lecture last summer in West Virginia, that not only red spruce and Fraser fir, but also hardwood trees are dying at alarming rates. Oaks and hickories are especially affected by ground level ozone air pollution that is formed from reactions of nitrogen oxides and hydrocarbons in the presence of sunlight and then absorbed as a gas by plant leaves. Some of its effects on trees and plants are reduced photosynthesis and growth, pollen germination, and flower and cone production. Researchers in the southern Appalachians have found 95 plant species affected by ozone, including red and sugar maple, yellow birch, blackberry, black cherry and sassafras. Once again, those hardest hit are at higher elevations. "There are no healthy mountains above 5,000 feet in the southern Appalachians," Loucks said.

But what about Pennsylvania's forests? The highest point in the commonwealth is Mt. Davis at 3,213 feet. That means our forests are safe from acid precipitation and low-level ozone damage, right? Wrong, concluded researchers at the Pennsylvania Acidic Deposition Conference held at Penn State last September and sponsored by Penn State's School of Forest Resources, College of Agricultural Sciences and Environmental Resources Research Institute, as well as the Joint Legislative Air and Water Pollution Control and Conservation Committee of Pennsylvania's House of Representatives, the United States Geological Survey and the Chesapeake Bay

Program. These varied institutions are deeply concerned about the effects of acid pollution on both our forests and water. So, too, are Pennsylvania's Bureau of Forestry, the Northeastern Forested Experiment Station of the United States Forest Service and the Pennsylvania Game Commission, which also provided support for the conference.

A fine mix of state politicians, graduate students, professors and government scientists presented papers addressing the continuing problems caused by acid pollution despite the lauded amendments, in 1990, to the Clean Air Act of 1970. The amendments required the Environmental Protection Agency to create an acid rain program that reduced sulfur dioxide emission by 50 percent nationwide. But that reduction is not enough.

Furthermore, nitrogen oxide emissions are as important to control as those of sulfur dioxide. For instance, the wooly adelgids that are killing hemlocks have been around for more than 50 years, but only recently have their populations exploded, probably because they thrive on excess nitrogen. And the demise of the butternut tree is due to a virulent canker first discovered in 1967, but the tree is also highly susceptible to air pollution. According to Kathryn Clay, keynote speaker and legislative assistant for energy and environment for Senator Daniel Patrick Moynihan of New York, there needs to be an additional 50 percent cut of sulfur dioxides and 70 percent cut of nitrogen oxides. Only then will sensitive soils and water have a fighting chance to recover from years of air pollution.

The word sensitive is important. There seems to be general agreement that not all of Pennsylvania's forest soils are in serious decline. Dr. William Sharpe of Penn State's School of Forest Resources says, however, "Over time we are diminishing the calcium and magnesium in the soils that are essential for plants to thrive."

The areas hardest hit, though, are those

where the soil is poor to begin with. Clearcutting such places is particularly disastrous because there is a serious loss of magnesium, potassium and particularly calcium from the soil, all of which are crucial to the growth and vitality of many tree species. Generally, the poorest soils are on ridgetops, which also receive the most acid deposition. "That is where you are most likely to notice discoloration in tree foliage by June, or a change in the crown shape of such susceptible trees as sugar maples," Sharpe says. In these failing sites, 50 percent of the sugar maples have declined. Too much aluminum and not enough calcium in the soil has led to long-term, low level stress that produces measurable reductions in ecosystem health, vigor and resiliency to continual distress. In other words, trees may appear to be dying of severe cold, insect infestations, diseases, and/or drought, but had they not been weakened by air pollution, they would have survived such natural stresses.

Both sugar maple and red oak seem to be adversely affected by air pollution, particularly the resulting low calcium and high aluminum in the soil. One study of red oak regeneration found that few seedlings survived such conditions. On the other hand, black cherry trees tolerated more acidity. Hay-scented ferns, which have been taking over large tracts of forest and inhibiting the germination of tree seedlings, thrive under acid conditions.

Adding lime to trout streams that have been damaged by acid precipitation has been effective in counteracting the effects of acidity, so several scientists have been experimenting with adding lime to poor forest soils. Liming cut down on sugar

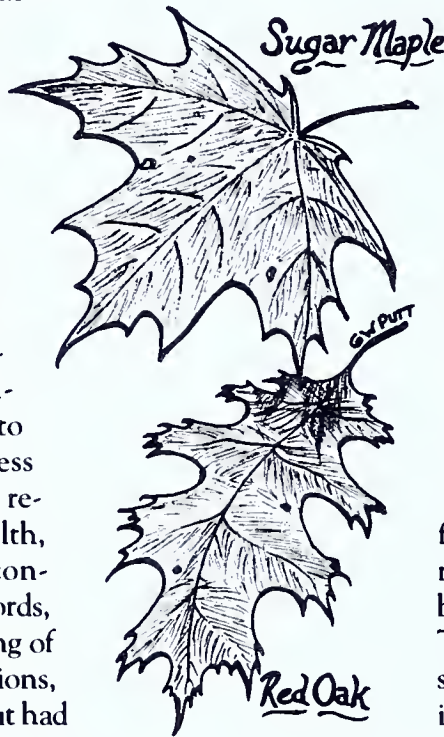
maple mortality, but it negatively affected black cherry trees and neither hurt nor helped American beeches. Even if we could lime all the affected soils, it would be no magic bullet to cure the complexities of nature's reaction to air pollution.

I was particularly interested in how acid deposition is affecting forest animals. Dr. Robert Carline of Penn State is studying the affects of acidic runoff occurrences on both fish populations and their diversity in Pennsylvania. If the water is highly acidic and thus high in aluminum, the gills of a fish are destroyed. The survival of fish embryos is also low. Carline implanted radio transmitters into adult fish and monitored their reaction in streams with high levels of aluminum. The fish moved downstream away from it, fleeing to seeps and areas where alkaline tributaries

were entering the stream. Those that didn't find an escape route often died.

To study fish diversity, Carline looked at streams from 1994 to 1995 that had been in good condition back in 1961 to 1971 and found that they had lost three and a half species in a little over two decades. The species that were lost in streams on both the Allegheny Plateau and the Ridge-and-Valley sections of Pennsylvania were those most susceptible to acidic conditions.

Another study that interested me was an ongoing one at the Carnegie Museum of Natural History's Powdermill Nature Reserve in southwestern Pennsylvania. Ornithologist Robert Mulvihill reported on the Louisiana waterthrush and acid in streams. Listening to the ringing songs of those birds in early spring along rushing



mountain streams is one of life's greatest pleasures, and we have at least three pairs singing and nesting along our mile-long stream. This riparian songbird's diet consists almost entirely of aquatic insects. In fact, Mulvihill calls them "trout with wings."

At Powdermill, Laurel Run is polluted by acid mine drainage. In stark contrast, Powdermill Run is a pristine stream. Predictably, Laurel Run has fewer insects than Powdermill Run does. Although there seems to be no difference in Louisiana waterthrush nesting success between the two streams, Laurel Run supports only three breeding pairs while Powdermill Run supports 11, even though Laurel Run is more than twice as long as Powdermill Run.

The little, sometimes almost microscopic, critters of streams and forests are often indicators of forest and water health. Dr. William Kimmel of California University of Pennsylvania has been studying the diversity of stream insects at Laurel Hill Creek in southwestern Pennsylvania since 1979. In streams where the underlying rocks are sandstone, flushes of acidic water in spring are devastating to the insect population. For instance, 99.9 percent of mayflies may be killed. If they don't die, the insects drift away from the area and search for alkaline seeps and tributaries. Then they reoccupy the acidic areas once conditions have improved.

Dr. Linda Butler of West Virginia University has been studying the insects that live in tree canopies in acidified and unacidified watersheds. She found that while there was no notable difference in the insect families that occupied the watersheds, in acidified watersheds there were much larger numbers of insects, particularly beetles, aphids and caterpillars, all of which feed on tree leaves.

It was obvious that the scientists have not yet teased out all the reasons for our declining forests, but they agreed that we do have problems. Acidic soils are weakening susceptible tree species growing in

susceptible areas. Forestry practices, such as whole tree harvesting and clearcutting, take too many nutrients from already stressed forest soils. And due to an overpopulation of deer in many areas, tree seedlings that do manage to germinate in the acidic, low nutrient soils are eaten. While disease, drought and insect infestations may be normal occurrences in the life cycle of a healthy forest, a forest that is growing on a poor site that has been further weakened by air pollution may not survive.

Some scientists went so far as to recommend that we lime, fertilize and replant every forest that we cut. Others seem to think that we still have time to rethink our forestry practices, such as cutting on good sites and not cutting on poor ones. Furthermore, bringing back susceptible species, such as sugar maple, white ash and red oak, require different practices than regenerating non-susceptible species. But they all agreed that forest soils will continue to deteriorate if air pollution is not greatly reduced.

As someone who is wedded to the beauties of the biologically diverse Pennsylvania forests, it was difficult not to be depressed by such a conference. But I still believe that knowledge is power, and I was impressed by the distinguished rostrum of speakers, in both the private and public sectors, who are aware of the problems and are trying to educate others about them. The more we know, the more we can change. After all, air pollution is not just weakening forests and killing fish, it's harming every living thing from the microbes in the soil to the health of human beings.

For further reading I recommend *An Appalachian Tragedy: Air Pollution in the Eastern Forests of North America* edited by Harvard Ayers, Jenny Hager and Charles E. Little. This coffee-table book, complete with excellent photographs, includes a comprehensive scientific bibliography of papers, reports and books dealing with the effects of air pollution on trees, forests and associated biotic communities. □

Once you get past its nose, you have to deal with those “radar dishes” on top of a whitetail’s head. Make a mistake here, and the game is probably over.

Silence is Golden



CHECK YOUR treestand for any squeaks or creaks that might give you away before heading out, and after you're in position.

MY DISGRUNTLED look let the archery shop owner know I wasn't a happy camper.

“What happened?” he asked, noticing I was carrying my bow as I walked through his front door.

I told him I had found the perfect hunting spot on top of a small ridge, where the deer were feeding on acorns around the same time every morning. I had found the perfect tree for my climbing treestand, and while hunting that morning a 4-point came walking along the ridge with its nose buried in the leaves, foraging for acorns. The buck walked to within 10 yards of my perch. My heart was pounding like a bass

drum when I stood up to draw. And then I told him the bad news. When I drew back my bow, this ungodly squeak shattered the morning silence, sending the buck hightailing it out of the area.

“Let me take a look at it,” the shop owner said as I handed him my bow. He pulled the string back slowly and, at about half-draw, there it was — *Squeeeek*.

“Well, I see why this spooked the deer,” the shop owner said as he put the bow in a press to take the cams off and clean the axles that held them in place. “You got some dirt and moisture in here. That’s what’s causing the problem.”

In the game of bowhunting, silence is golden. Those ever-swiveling radar dishes on top of a whitetail’s head seem capable of hearing a pin drop at 100 yards with a hard wind blowing. Sometimes I think deer can even hear that pounding bass drum in my chest every time I have a close encounter with this wary animal. It should be the goal of every bowhunter to deaden or eliminate as much sound as possible.

Silence in the woods begins at home with your chosen clothing. Fortunately for bowhunters, clothing manufacturers know how important silence is, and there are more types of material that minimize sound today than ever before. Saddle Cloth, Shikari Cloth, chamois, wool and fleece — just to name a few — are all extremely quiet. Stay away from nylon, denim and other stiff fabrics that can produce sound



STRING SILENCERS take the *twang* out of the bow when it's shot.

when brushing against something.

As a treestand bowhunter, I've never been terribly concerned about the sounds my footwear might make while I'm walking, because I only need to get to and from my stand. By timing my hike correctly — moving in before the deer are in my hunting area — the noise I make doesn't really concern me. Now that doesn't mean I hoof it through the woods like a bull in a china shop. I move along as quietly as possible, but my goal isn't necessarily to be absolutely silent, and the boots I wear are designed more for comfort during long periods of standing than sneaking around the woods.

Bowhunters who prefer to still-hunt, however, should seek out ultra-quiet footwear. Typically, these are boots with thin rubber soles that allow hunters to feel what's under their feet before putting all their weight down. You want to know if you're about to step on a twig that might snap or a loose rock that might roll. All sorts of lightweight boots designed specifically with still-hunting archers in mind are on the market these days. They're more flexible and less bulky than conventional hunting boots — acting and looking a lot like sneakers.

Okay, we're dressed like ninjas, so now it's time to focus on rigging our equipment for silent running. Let's start with our bows. Each year before the archery season you should take your bow to the archery shop and have the technicians remove the cams and axles to clean all the gunk that's collected on and around them. This is where most squeaks develop. And no matter how meticulously you care for your bow, rest assured, there's going to be some dirt and grime around your cams.

If your bow has developed a squeak, don't just squirt oil into the axle cracks. That shot of oil will probably cure the problem temporarily, but it's going to catch dirt like flypaper, and the squeak will inevitably return. After cleaning the axles and cams, rub some graphite on all the contact points for lubrication. Graphite won't catch dirt and moisture like oil.

Squeaks can develop in parts other than the cam assembly, such as where the limbs meet the riser and where the cables touch metal. Let your archery shop technicians work on these noises, because they could be indicative of a cracked limb, worn cable or other bigger problems.

Silencing the *twang* created when you shoot is a simple matter. Essentially, there are two types of string silencers. One is a series of thin strands of rubber called "cat whiskers." The other is basically a ball of yarn. Tie a pair of these silencers to your string — one at each end of the bow — and the *twang* will turn into a dull *thump*. If you're a speed freak, and like to have the fastest shooting bow you can, go with the rubber silencers. They won't take as much velocity away from your bow as the yarn silencers.

The critical time in any bowhunt is when you decide to draw your bow. The deer is close enough for a shot, which means it's close enough to hear you think. One of the most unnatural sounds your bow can emit is the sound of the arrow sliding across the arrow rest. It's imperative to muffle that sound. Covering the rest with

a little heat-shrink tubing or electrical tape works. And just in case your arrow should fall off the rest, you'll want to glue some moleskin or soft leather to the riser around the arrow rest.

Bowhunters today like to hook plenty of gadgets to their bows, such as stabilizers, wrist guards, sights and quivers that are screwed into pre-drilled holes in the bow. Because of the energy that is absorbed by the bow when shot, each one of these accessories is capable of generating sound. They can rattle if they're not attached properly.

Check the accessories on your bow constantly when you're hunting to make sure they're snug. Don't over-tighten them, though. That can make them shake loose even quicker, or cause them to break. The quiver is a tricky accessory to silence. Not only do you have to worry about the quiver rattling, but you also have to be concerned about the arrows it's holding.

When you're picking out a quiver to attach to your bow, find one that has strong rubber grips that will firmly hold the arrow shafts. If it doesn't already have it, fill the hood of the quiver, which covers your broadheads, with foam. If the broadheads are not held firmly in place inside the hood, they're guaranteed to bounce around when you take a shot.

The chance of a bow-attached quiver making an unnatural sound is so great that I've eliminated it from my bow altogether. I use a quiver that either attaches to my belt or can be quickly detached from my bow once I'm on stand, just so I don't have to worry about it making noise when I shoot. I simply hang the quiver on a hook attached to the tree I'm hunting from and it's no longer a factor.

Some of you speed freaks might notice that your bows crack like a 22-caliber rifle when you shoot at a range. One of the best ways to increase arrow speed is to shoot super-light arrows. Unfortunately, that's also the best way to make your bow noisy. Light arrows are not capable of absorbing



YOU'LL get closer to your ultimate goal by eliminating any sounds made by you or your equipment.

all the energy your bow turns loose when shot. That's why it goes *crack*. Try shooting a heavier arrow when hunting season rolls around. Sure, you'll lose some speed, but your bow will become more quiet, and heavier arrows are better for deep penetration, too.

Treestands are another prime source of noise when you're bowhunting. Any place two metal parts touch on either a climbing or hanging stand, squeaking or clicking noises are possible. These are the areas that you want to attack with silicon gel, cloth tape or felt to deaden that sound as much as possible.

I've found that portable treestands can make creaking sounds where the stand meets the tree — particularly on cold days. Typically, a creaking treestand means it's not locked firmly into place. Sometimes, all it takes to make the stand fit the tree snugly, and subsequently kill the creak, is a good stomp on the platform. If that doesn't work, you might have to re-hang the stand to get a better fit.

The ultimate goal in bowhunting is to become an invisible part of a deer's environment. And part of being invisible is being silent. As your bowhunting skills develop, you'll find additional ways to make less noise. Each sound you eliminate will help you get closer to your goal. □

The Shooters' Corner

By Don Lewis

A lot of factors come into play on whether or not a hunter connects on that buck standing on a power line 300 yards off, but two important ones are . . .

Velocity & Trajectory

STRONG WINDS and the chilling cold of a bitter December morning had penetrated the hunter's heavy clothing and boots. Because this was his last opportunity to hunt during buck season, he was determined to battle the elements as long as possible. Also, the thoughts of the monstrous buck with the wide rack were another reason not to give up.

The wind worried him because he could be faced with a 250-yard shot if the buck came out of a woods that sloped upward from a wide pasture. He banked his hopes on the buck coming down a hollow behind him that would cut the distance to 75 yards through heavy brush. He had borrowed a friend's .45-70, but his friend had suggested he use a scoped .270 Winchester sighted in at 200 yards, thinking it would handle either situation.

While contemplating the morning, shots rang out across the pasture. A few seconds later three deer emerged from the woods and raced toward him. All were does. Seconds later, another deer bounded out but did not follow the does. It was the

buck, and it raced down from the woods and stopped a few yards into the pasture. It was perfectly silhouetted against a background of snow. The hunter rested the old rifle against a tree and fired. The buck just stood there. A second shot didn't move the buck, but the third sent it into the woods. It was hard for him to believe he had missed all three shots from a rest. When his hunting pal arrived, the old hunter related what had happened.

After a minute or two of discussion, they decided to see where the bullets had gone. Much to his surprise, the distance was 293 steps, and the three shots had cut trails in the snow more than 50 yards in front of the buck, or as the old hunter said, "They landed a mile short of their mark."

SPITZER BULLETS offer much better aerodynamic shape than the round nose design and lose velocity less quickly. The finest long-range hunting bullets use this design, which typically offers twice the ballistic coefficient rating of equivalent round nose bullets.



That afternoon he stopped at my place to see if the .45-70 was sighted in. I fired several rounds on my 80-yard range. The old trap door outfit was not exactly on zero, but it was close enough to make a 100-yard shot. He asked if I could give him some idea how low the rifle would be at 300 yards. I didn't have a computerized program back then, but a ballistic sheet led us to believe that a 405-grain bullet exiting the muzzle around 1,300 fps would be approximately five feet or more low at 300 yards if the rifle was zeroed at 100 yards.

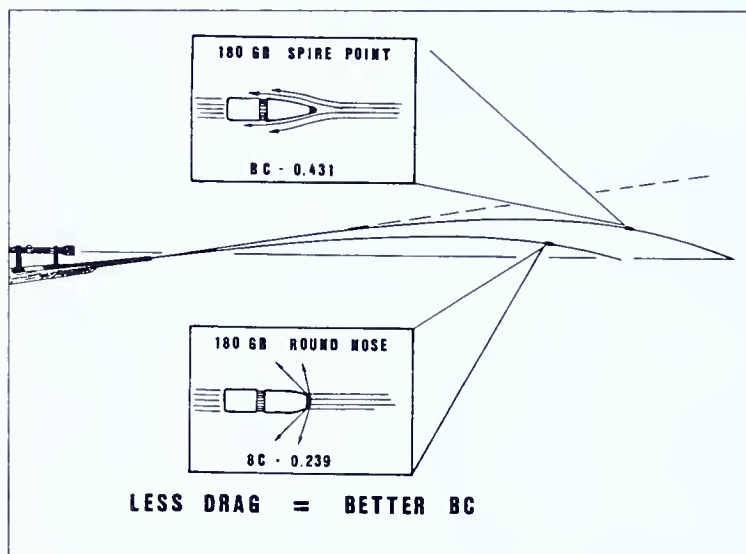


CHART (Not to scale) shows difference in trajectory paths between 30-caliber bullets with different ballistic coefficients.

When I decided to relate this episode, I made several trajectory readouts on the computerized Barnes Ballistic Program. The results were a bit surprising. A 405-grain bullet exiting the muzzle at a quoted factory velocity of 1,310 fps zeroed at 100 yards would be 9.2 inches low at 150 yards, 26.2 inches low at 200 yards, almost 52 at 250, and close to 86 inches low at 300 yards. That's more than seven feet! No wonder the bullets landed "a mile short of their mark." For comparison, I did a readout on a 130-grain .270 spitzer bullet exiting at 2,850 fps. At 300 yards, the 130-grain slug is only 7¼ inches low. It's reasonable to assume that using a .270 he

might have connected on the buck.

It's fair to say the hunter did not understand the flight path of the .45-70's bullet. He assumed the large cartridge meant both power and high speed. He probably didn't realize that the slow velocity of the big .45-70 slug would subject it for a longer time to the pull of gravity.

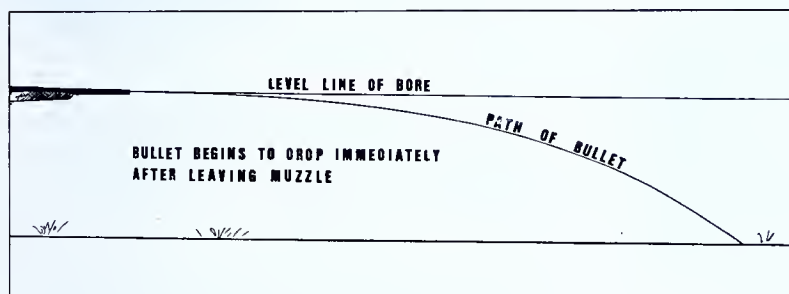
To understand this better, it's a ballistic fact that the instant a bullet exits the muzzle it begins to drop. No matter how slow or how fast a bullet is traveling through the bore, it's subjected to the pull of gravity the instant it leaves the muzzle. All objects heavier than air obey this law.

Not using a zero range and with the barrel held parallel to the ground, the Barnes' readout showed the 405-grain bullet with a 1,310 fps muzzle velocity fell 11 inches at 100 yards, 50 inches at 200 yards and 121 inches at 300 yards. Under the same circumstances, the .270 Winchester's 130-grain spitzer bullet with a muzzle velocity of 2,850 fps drops 2¼ inches at 100 yards and a total of 23 inches at 300 yards. These figures should give good examples of the impact gravity has on the arc of trajectory.

The ballistic coefficients of these two bullets is another factor. The 405-grain .45-70 (.458 diameter) flat nose bullet has a BC of .213, and a 130-grain spitzer .270 bullet has a BC of .416. The higher the ballistic coefficient, the easier it is for a bullet to slip through the atmosphere.

To understand the arc of trajectory requires knowing the speed of the bullet and its ballistic coefficient. While the pull of gravity is constant, it doesn't have as much time to subject a high velocity bullet to its pull than it does a slow moving bullet. The

Barnes Program also showed that a 405-grain bullet with a muzzle velocity of 2,850 fps (same as the .270 Winchester) and zeroed for 100 yards would be 1¾ inches low at 150 yards; five inches low at 200 yards and 18½ inches low at 300 yards.



It could be reasonable to assume that the 405-grain bullet and the 130-grain .270 bullet should have the same trajectory arc. Here we get into the ballistic coefficient problem. As I mentioned, its form decides the BC of a bullet. The 130-grain bullet was a sharp-pointed spitzer; the .45-70's big 405-grain bullet was a flat nose. The 130-grain bullet was hitting a brisk 2,220 fps at the 300-yard mark. The 405-grain flat nose was lumbering along at slightly more than 900 fps. It's obvious why the big slug dropped more.

The arc of trajectory is somewhat mysterious, and there are several theories on what it looks like. The computerized ballistic programs I use show the trajectory of a bullet as an elongated arc. In other words, the highest part of the arc would be past the halfway mark of the sight-in. If a rifle was zeroed at 300 yards, the highest part of the flight would be around 55 percent of the sight-in distance, or somewhere around 165 yards (Barnes Maximum Height of Trajectory Program shows the 130-grain .270 bullet exiting at 2,850 fps would reach its highest arc at 168 yards). Mid-range would be 150 yards.

The many factors involved in a bullet's flight make it impossible to say exactly what its trajectory will be. It's possible that

those who claim a bullet can reach its highest arc before the halfway point of the sight-in don't mean that it happens with every bullet fired. There could be exceptions.

I'm not a ballistic expert. I have no reliable means to prove exactly how the arc of trajectory unfolds as the bullet moves away from the muzzle. It seems logical that a bullet would travel somewhat beyond the halfway sight-in distance before beginning its downward course.

I think it's fair to say that each bullet fired in a group travels a slightly different trajectory path. (Note: The arc would be nearly the same, but the bullet will hit high or low.) If a 5-shot group measures 2½ inches at a 100 yards, it's obvious the highest bullet in the group would strike higher than the lowest bullet in the group at longer ranges. This means virtually nothing on a 100-yard shot, but it could play havoc on a 300-yard shot. This pertains more to big game rifles, which do not have the accuracy potential normally found in competitive and varmint rifles.

For handloaders and shooters interested in knowing and understanding the arc of bullet flight, it's imperative to use a chronograph. A high quality chronograph such as the Oehler 35P gives basic ballistic data, such as instrumental velocity for each shot, high and low velocity readings, average group velocity and the standard deviation for the group, which in simple terms means the uniformity of the velocities fired.

With careful record keeping, it will soon become apparent how a bullet flies after exiting the bore. For the truly dedicated handloader the Oehler Model 43 Personal Ballistic Laboratory in conjunction with the Oehler downrange Acoustic Target unravels a lot of the mysteries about the flight of the bullet. □

In the Wind

By Bob D'Angelo

The number of incidents during the 1998 firearm deer season in Michigan dropped to 21 from 27 in 1997, but fatalities increased from two in '97 to four in '98. Three of the fatalities were attributed to violations of law or safety practices

There were a record 3,121 bears taken in Wisconsin in 1998 — up from 2,178 taken the previous year. The previous record was 2,325 taken in 1996.

Coyote and fox populations are declining in many areas of North Dakota. The decline is attributed to higher mortality related to two factors: First, harvest pressure by hunters and trappers has increased. Second, and more significant, has been the outbreak of sarcoptic mange. Despite the statewide decline, there are, however, localized areas where numbers appear to be stable or increasing.

Spending by America's 14 million hunters creates more than 700,000 jobs in the U.S.

Hunters in Ohio took a record 86,280 Canada geese during the 1997-98 hunting season — up 22 percent from 1996-97.

A Casper, Wyoming, resident was sentenced to 30 days in jail and denied hunting and fishing privileges for the next 36 years, following his conviction for the illegal killing and discarding of six antelope in October 1996.

There were 306 turkeys taken last fall — down from 359 taken in 1997 — in Maryland's three counties open to a fall season. Allegany was tops with 154.

There were an estimated 1,500 to 1,600 bears taken by 7,305 hunters in Michigan during the 1998 season.

Pennsylvania's population is expected to increase about four percent between 1995 and 2020 — a small increase when compared to other states. According to U.S. Census Bureau projections, Pennsylvania is ranked 49th in the nation in terms of population gains between 1995 and 2020. Only West Virginia's population is expected to grow at a slower rate.

The U.S. Fish and Wildlife Service is opening 17 new hunting and fishing programs — ranging from small game hunting in Alabama to surf fishing at Midway Atoll in the Pacific — in America's National Wildlife Refuge System. The USFWS now offers 290 hunting and 307 fishing programs on the 514 refuges and many waterfowl production areas that make up the nearly 93 million acre National Wildlife Refuge System.

A North Carolina woman faces fines for taking a fawn from the wild and having the deer's ears pierced, so it could wear earrings.

Answers: 1, W; 2, E; 3, T; 4, L; 5, A; 6, N; 7, D; 8, S.

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Done for the April '80 Game News, *Ladies' Man* is now being offered as a limited edition print by the Ned Smith Center for Nature and Art.

Edition size is limited to the number of orders received by August 31, 1999. Prints measure 15 x 22½ inches and will be on the finest 100% all rag, acid-free paper.

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Get HIP

IN 1996, Pennsylvania began cooperating in the Migratory Bird Harvest Information Program (HIP), administered by the U.S. Fish and Wildlife Service. HIP was developed to provide information on hunting pressure and harvest figures for migratory game birds, particularly woodcock, mourning doves and other upland migratory game birds, for which no way of obtaining such information existed.

Through this program, those who hunt any of these migratory game birds in Pennsylvania are required to purchase a Migratory Game Bird License (\$3).

Every hunter who purchases a Migratory Game Bird License fills out a form on which he's asked to estimate the number of ducks, geese, woodcock, doves, coot/snipe, and rails/gallinules harvested the year before. This information is then forwarded to the USFWS. From these forms, the USFWS selects a sample of hunters who are sent a diary-like form for recording when and where they hunt, and the number and species of birds personally bagged each day. This hunting diary is then returned to the USFWS at the end of the hunting year and is used to monitor hunting pressure and harvests.

To check for accuracy, the HIP information is compared to estimates derived from the National Survey of Fishing, Hunting and Wildlife Associated Recreation Survey, the federal Waterfowl Hunting Survey, and from surveys conducted by state agencies. In Pennsylvania, HIP hunting pressure and harvest estimates are compared to those obtained from the Game Commission's annual Game-Take Survey.

In 1997-98, 122,539 HIP permits were issued in Pennsylvania. Of those, 33,700 hunters indicated they hunted doves and that they took 435,100 birds. The Game Commission's Game-Take Survey indicated we had 60,178 dove hunters and that they harvested 506,677 doves. For woodcock, the HIP information indicated 9,600 woodcock hunters bagged 18,700 woodcock. The Game-Take Survey indicated 13,374 woodcock hunters bagged 23,878 woodcock.

For ducks, HIP information suggested 25,500 waterfowlers took 127,700 ducks; the Game-Take figures were, respectively, 32,180 and 188,034. Finally, for geese, HIP figures were 27,900 hunters and 96,600 geese; and from the Game-Take, 30,574 hunters and 115,506 geese.

Based on these comparisons, it appears that a significant number of migratory game bird hunters are not participating in the HIP program. In fact, Game-Take Survey results indicate that around 10 percent of waterfowlers and 30 to 40 percent of dove and woodcock hunters are not buying Migratory Game Bird Licenses.

HIP was instituted to provide the best hunting opportunities possible. The more we know about the number of people who hunt migratory game birds and the number of birds they harvest where and when, the better hunting opportunities can be. For this program to work, every hunter who hunts any migratory game bird — doves, woodcock, duck, geese, or even coots or snipe — must purchase a Migratory Game Bird License and fully cooperate in this program.

This year, if you're a migratory game bird hunter, do your part: Get HIP. — *Bob Mitchell*

letters

Editor:

I enjoyed the muzzleloading article by Tom Mitchell, "The Loading Process" in the July issue of *Game News*. I would like to offer a comment regarding muzzleloading accessories.

A touchhole pick is usually available right at home for no cost. I use common safety pins to check and clean the touchhole, and attached several to my outer garments to make sure they are readily available when needed. Now if we only had a muzzleloader deer season that opened in October or November.

R.L. BENJAMIN,
SCHNECKSVILLE

Editor:

Would you please explain why bowhunters are given the choice time for antlered deer season and get 55 days to hunt bucks, and in generally better weather, while rifle season is only 12 days.

K. MEYER,
FORT PIERCE, FL

Bowhunting is much less efficient. While the archery season is much longer than the rifle season, fewer hunters participate, and those that do account for a small percentage of the total buck harvest. The season structure as it is now provides hunting opportunities for the most number of people without jeopardizing the resource. Every hunter, you probably know, is free to hunt in the archery season.

Editor:

Reading "A Day to

Remember," in the June issue, I recalled how my dad and I hunted chucks, but that we never killed one unless someone was going to use the meat or fur.

K. HUEY,
JACKSONVILLE, FL

Editor:

After reading *Game News* I take it down to the waiting room of a nearby hospital. And rather than cutting my name and address off the back cover, I've found that I can wipe it off with a drop or two of acetone. I've also found that the issues stay intact a little longer than if they had a ragged cover.

B.B. OROS,
ERIE

Editor:

Reading the "In Memoriam" section of the July issue, I was struck by how long those named had worked. This is certainly a testimony to the Game Commission providing a satisfying work environment and fulfilling jobs for employees.

C.P. MILLS,
HUNTINGDON VALLEY

Editor:

I can't understand all the hysteria over black bears. Bears are not new. They've been residing here since long before modern man. In my area people have been killed by pet dogs, farm animals and

yellow jackets, yet nobody in modern times has been killed in Pennsylvania by a bear. I think all the facts should be told on these gentle creatures.

R. BILGER,
KEMPTON

Black bears have become more common around more people than at any other time. And because of artificial feeding and other practices, many bears have lost their natural fear of humans. This is creating problems across the state, particularly in the northeast. It's extremely important that the Game Commission makes people aware of these problems and steps that can be taken to avoid them.

Editor:

Joe Parry's "Tip's Last Bunny," in the August issue, was great. I lost a dog three years ago, and as anyone who has ever lost a dog knows, that dog will always be a part of you, a part you won't ever forget.

T. MORROW,
HOOKSTOWN

Editor:

Just a note to say how much we enjoy "Wild Pennsylvania" on WVIA. We are not hunters, but our property is open to hunters, almost every one of which we've found to be careful and polite.

M.J. HAMM,
MANSFIELD

Your comments are welcome. Mail them to "Letters," 2001 Elmerton Ave., Harrisburg, PA 17110-9797. Letters will be edited for brevity and clarity.

Chance of a Lifetime



Whitman

IT ALL STARTED more than a year ago, when my father's friend found a set of antler sheds. The main beams were more than 20 inches long, and as soon as I saw them I knew the whitetail that had carried them was one I wanted to hunt.

During the summer I began spotlighting the fields near where the huge sheds had been found, and one evening just after dark I spotted him. There was no mistaking him. The buck's rack looked bigger than the sheds. Once I knew where he was feeding, I thought that if I could find his bedding area I might get a chance at him. I tried to spot the deer every night, but the sightings were few and far between.

Near the end of summer my hunting partner, Don Miltz, and I obtained permission to hunt on the

property
where the
big buck
seemed to
be spending

much of his time, and after scouting we had several spots selected to place our stands. Then it was simply a matter of waiting for opening day.

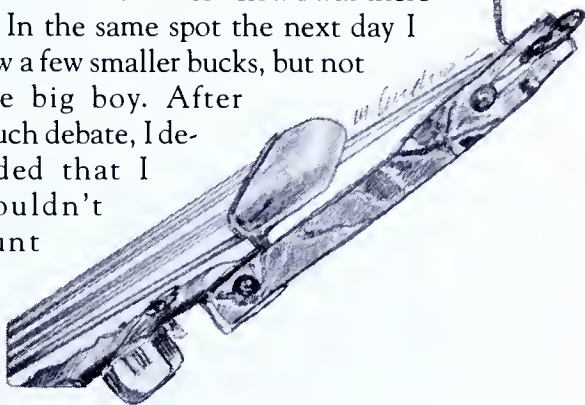
Last year's opening day weather was terrible; it rained all day. We hunted anyway, though, but without any luck. The following week was extremely hot, and I knew I would perspire so much getting to my stand that I would be spreading my scent all around, so I didn't hunt much. I rarely ever hunt the same place more than twice a week due to the scent factor. Deer seem to know when you have been in their domain. I hunted that spot only one more time then decided to change areas.

I set up my treestand lower in the woods, hoping to see the buck before dark near its feeding area. After having no luck, I figured he was just too smart to catch in an open field before dark. The next day I went to the top of the hill where I thought he might be crossing while traveling to his feeding area. I set up my stand in a walnut tree with lots of cover in front and behind.

The place I chose was a long, steep walk from the road, but necessary because the wind would be in my favor when approaching from this side.

At about 5:45 p.m. a small 8-point walked under my stand. I watched him, knowing I wasn't going to shoot, and soon I heard a noise to my right. Peeking around the tree I saw the monstrous buck 30 yards away and closing. I grunted on my grunt tube, and he went to the nearest sapling and began pulverizing it. Watching and waiting for a shot, I grunted again. He proceeded to the next tree — a 4-inch sapling — and pushed it to the ground then tore off the limbs. I was impressed. He then headed for the smaller buck. Because he stayed in some thick stuff, I couldn't shoot, but I noticed a small clearing that he would soon move into. The buck reached the clearing then stopped. When I was ready to shoot I noticed a small sapling in front of the deer's chest. Debating taking the shot, I decided to let him walk. The chance of wounding him was too great. Watching the huge buck walk away made me feel sick. I thought I might never get another chance at such a big buck. Twenty minutes later, though, the buck came back and closed within 40 yards. I grunted, but he didn't seem interested. He went down over a hill to feed on the acorns. I waited about an hour before leaving my stand, because I didn't want him to know I was there.

In the same spot the next day I saw a few smaller bucks, but not the big boy. After much debate, I decided that I wouldn't hunt



the spot for at least another week, to rest the area.

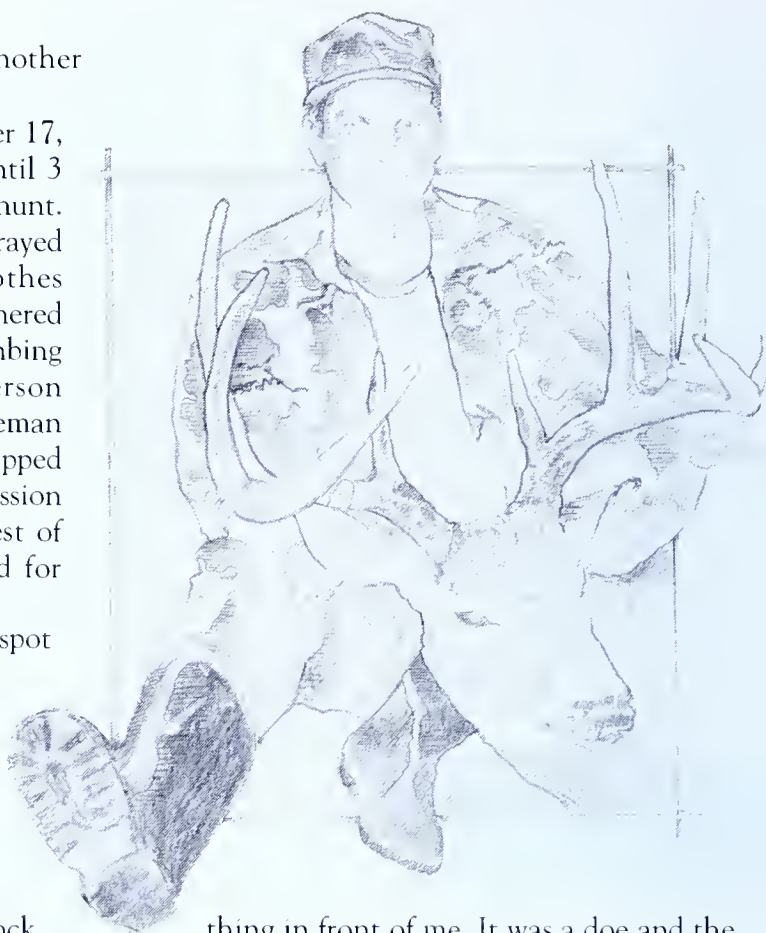
On Saturday, October 17, I didn't get off work until 3 o'clock, but decided to hunt. I took a shower and sprayed my camo hunting clothes with a cover scent. I gathered my Summit Cobra climbing treestand, my McPherson Terminator bow with Beman 380116 carbon arrows tipped with Wasp CCL compression broadheads, and the rest of my gear, then I waited for Don.

After arriving at our spot I told Don he should hunt in the hollow a few hundred yards from me. I had been seeing a couple of good bucks traveling through there.

We parted at 4 o'clock. My hike up the steep hill was grueling. I wanted to get there as quickly as possible but without overheating. After I walked up a field and down an old tractor path, I reached the area I wanted to hunt. It was just across an old fence and through a high weed field. It was about 4:35 when I finally got set up.

A half hour later the landowner came by on his tractor. He said he needed to cut a few locust posts and then he would be gone. I thought about leaving, but the farmer said the deer were used to hearing his machinery. He finished in about 20 minutes and I was back to my vigil.

A half hour before quitting time I decided to leave, so I wouldn't have to walk out in the dark. I got my stuff together and lowered my bow to the ground, then took off my gloves and headnet and threw them onto the seat of my stand. Just as I did, I heard some-



thing in front of me. It was a doe and the big buck. With my bow on the ground, I thought I had missed another chance at the buck, but then I figured I still had to try, so I began raising my bow. When the bow hit a limb and made a small clanking noise, I expected the buck to bolt, but he didn't. When I finally got the bow to the top of the stand the doe was only 15 yards away, standing broadside, looking just past me. Without my headnet and gloves I felt like I was standing out like a sore thumb. When I took the rope off of my bow, the doe turned and walked back toward the buck. That gave me the opportunity to knock an arrow and turn in my stand. At 20 yards the buck was facing directly toward me, and although the distance was perfect, the angle presented a challenging shot. I drew my bow and looked through the peep sight, but the light wasn't ideal for a peep sight. I double checked my sight picture until I was confident I could place the arrow exactly where I wanted it, then relaxed my fingers on the string. The ar-

row struck the deer exactly where I had aimed and the buck collapsed.

Surprisingly, I wasn't nervous before the shot, but when the buck went down I began to shake all over. I placed another arrow into the deer's vitals, because he was trying to get up, and then just stared at the huge buck for several minutes. When I was sure the deer was down for good, I lowered my treestand and walked out to the truck to get Don.

Don could tell by my grin that I had taken the huge buck. When we finally made it back to the spot I showed him where my stand was and said that the buck should be only 20 yards away. When Don spotted the buck he yelled, "Oh, man, he's a dandy, I can see the rack sticking out above the weeds." We just stood there a few minutes, admiring the rack, and then

we started the drag. The drag started out fine, but by the time we got to the truck the buck seemed to weigh a ton. When I got home Dad said, "I figured you got him when you didn't come home right after it got dark."

The next day I took the rack to Joe Rigg's Sporting Goods in Waynesburg. The owner of the store, Jim Hunyady, and former owner Joe Riggs, told me to get the rack scored after the drying period. When I had the rack scored for Pope and Young it measured 156 0/8 points. The huge 9-point weighed 184 pounds after field-dressing.

Taking the trophy buck was one of the best things that has ever happened to me. I'm proud because all of my patience and hard work really paid off. □

Fun Games — By Connie Mertz

Goose Guessing Game

Canada geese are common throughout Pennsylvania. How much do you know about them? Circle the five statements that are false then copy the misplaced capital letters below to learn the scientific name for Pennsylvania's Canada goose.

1. Canada geese have weBbed feet.
2. Canada geese are closely Related to snow geese.
3. Most Adult geese Never molt.
4. While residenT geese are increasing in number, migrAting Canada geese have generally been on the decline over the last several years.
5. Male geese are Called "honkers."
6. CanAda geese are found in every PennsylvaNia county.
7. MAles are easily iDentified from the females.
8. Canada geEse reach maturity in two years.
9. YouNg geese are called chicks.
10. Canada geese have excellent viSion and hearing.
11. Canada geese can fly only 20 mlles per hour.
12. Pennsylvania has a hunting season for nuiSance resident geese.

Interior

answers on p. 64

Often difficult to diagnose . . .

Lyme Disease

LYME DISEASE is an infection caused by the bacterium *Borrelia burgdorferi* that is transmitted by a tick bite. The disease can be difficult to diagnose. It often starts with a large red rash at the site of the bite, followed by flu-like symptoms and fatigue. Early in the course of the disease, the symptoms often go unnoticed or are mistaken for the flu, and not all persons develop the same symptoms. To further complicate matters, the symptoms mimic those of other diseases, so even persons who do complain of flu-like symptoms and fatigue may have something other than Lyme disease.

There are blood tests to check for antibodies to the bacterium that causes Lyme disease. The tests, however, are not useful if done soon after a tick bite, because it takes two to five weeks after being bitten by an infected tick for antibodies to develop. Even when an antibody (blood) test is done later, the result alone does not reliably predict the presence or absence of Lyme disease. The Food and Drug Administration (FDA), which regulates diagnostic tests for Lyme disease, has cleared for commercial sale and distribution only blood tests for antibodies that may be present in Lyme disease. Tests for Lyme disease that use urine or other body fluids have not been cleared by the FDA.

How is Lyme Disease Spread?

Lyme disease is spread by the bites of *Ixodes* ticks (the deer tick, bear tick, western blacklegged tick or blacklegged tick, depending on the region of the country). These ticks are much

smaller than the common dog or cattle ticks. They can attach to any part of the body, but especially moist or hairy areas, such as the groin, armpits and scalp.

Campers, hikers, outdoor workers and gardeners are at the greatest risk of exposure to infected ticks. Lyme disease is widely distributed in northern temperate regions of the world. In the United States, the highest incidence occurs in the Northeast, North Central and the West Coast (particularly in northern California).

Symptoms of Lyme Disease?

The symptoms of early stage Lyme disease include: a characteristic skin rash called erythema migrans, muscle and joint aches, headache, chills and fever, fatigue and swollen lymph nodes.

Erythema migrans is a circular red patch that usually appears in three to 30 days after being bitten by an infected tick. The patch expands (to an average of five to six inches in diameter) and persists for three to five weeks. Sometimes many patches appear and vary in shape depending on their locations. The center of the patch may clear as the rash enlarges, giving a "bullseye" appearance. In some persons, the characteristic rash never forms or is not noticed, and not every rash that occurs at the site of a tick bite is due to Lyme disease. In some cases, the rash can be an allergic reaction to tick saliva.

The symptoms of late stage Lyme disease may not appear until weeks, months or even years after a tick bite and include: arthritis (usually as pain and swelling in large joints, especially the knee); nervous system abnormalities such as numbness, pain, facial paralysis similar to Bell's palsy, and meningitis (fever, stiff neck and severe

headache) and irregularities of the heart rhythm.

How is Lyme Disease Diagnosed?

Lyme disease can be difficult to diagnose, because its symptoms mimic those of other diseases. For example, the fever, fatigue and muscle aches can be mistaken for influenza or infectious mononucleosis. Joint pain can be mistaken for rheumatoid arthritis and neurologic signs for multiple sclerosis. Conversely, other types of arthritis or neurologic diseases can be misdiagnosed as Lyme disease.

To make a diagnosis of Lyme disease, the following should be considered: a history of possible tick bite, especially in areas of the country known to have Lyme disease, symptoms, and results of blood tests done at least five weeks after the tick bite to determine if antibodies to the bacterium *Borrelia burgdorferi* are present in the patient.

Blood tests are most useful in the later stages (more than one year) of untreated Lyme disease, but even then results may be inaccurate. To improve the reliability of these tests, the FDA supports the Centers for Disease Control and Prevention (CDC) recommendation for two-step testing and interpretation of results. This means that if the first test for antibodies to

the Lyme disease bacterium is positive or equivocal (uncertain), a second test (called a Western blot) should be performed to verify the presence of specific antibodies to the bacterium. If the results of the first test are negative but symptoms persist, the doctor may want to retest at a later date.

Can Lyme Disease be Treated?

If there are definite symptoms of Lyme disease, the doctor may prescribe antibiotics, which are usually given by mouth. Antibiotics should not be given just because a person was bitten by a tick. Patients who are diagnosed and treated with antibiotics in the early stages of Lyme disease usually recover quickly and completely. Most patients treated in the later stages of Lyme disease also respond well to antibiotics. A few patients may have relapses and need additional antibiotic treatment. Permanent damage to the joints or the nervous system can develop in patients with chronic late Lyme disease. Usually these are patients not diagnosed in the early stages or their initial treatments were unsuccessful.

Precautions to Reduce the Risk of Getting Lyme Disease

To decrease the chance of being bitten by a tick:

- Avoid wooded, brushy and grassy areas, especially in May, June and July. (Contact the local health department or park/extension service for information on local distribution of ticks.)



ALTHOUGH campers, hikers, outdoor workers and gardeners are at the greatest risk of exposure to infected ticks, hunters, especially those out and about during the early seasons, such as archers, are at risk. Scott Murphy, Carlisle, shown here with his Clearfield County 6-point, like all bowhunters, needs to be aware of the precautions to reduce the risk of getting Lyme disease.

- Wear light-colored clothing, so ticks can be seen more easily.

- Wear long pants and long-sleeved shirts.

- Wear shoes that cover the entire foot.

- Tuck pant legs into socks or shoes and shirt into pants.

- Wear a hat for extra protection.

- Spray insect repellent containing DEET on clothes and exposed skin other than the face, or treat clothes with permethrin, which kills ticks on contact.

- Walk in the center of trails to avoid brush and grass.

- After being outdoors, remove clothing and wash and dry them at high temperatures.

- Do a careful body check for ticks. To remove a tick, use tweezers and grasp the tick close to the skin. Pull straight back and avoid crushing the tick's body. Save the tick for possible identification by a doctor or the local health department.

Is There a Vaccine for Lyme Disease?

FDA recently licensed the first vaccine to aid in the prevention of Lyme disease. The new vaccine (trade name Lymerix) is approved for persons 15 to 70 years of age who live or work in grassy or wooded areas where infected

ticks are present. It is not currently available for persons under the age of 15.

Three doses of the vaccine, given over a period of one year, are needed. Although Lymerix may provide protection for the majority of people, it does not prevent all cases of Lyme disease. Studies by the manufacturer showed that after two doses of the vaccine in the first year, the protection rate against definite Lyme disease was 50 percent. In the second year after three doses it was 78 percent. Because the vaccine is not 100 percent effective, continued preventive measures are still necessary for immunized individuals.

For more information about Lyme disease, talk to a doctor, healthcare professional or local health department, or contact the Arthritis Foundation at P.O. Box 7669, Atlanta, GA 30357-0669; telephone 800-283-7800; www.arthritis.org; the American Lyme Disease Foundation, Inc., 293 Route 100, Somers, NY 10589; telephone 914-277-6970; www.aldf.com; or government agencies, such as the Centers for Disease Control and Prevention at the National Center for Infectious Diseases, Atlanta, GA 30333; telephone 404-332-4555; www.cdc.gov/ncidod/; and the Food and Drug Administration at 5600 Fishers Lane, Rockville, MD 20857; telephone 888-463-6332; www.fda.gov. This article is based on information from the above sources. □

COVER PHOTO BY HAL KORBER

THE PENNSYLVANIA Chapter of the National Wild Turkey Federation presented to the Game Commission at its April meeting the sculpture "The Tradition Continues," featured on this month's cover. The solid bronze, quarter-life-size sculpture is one of 25 based on a design by artist Cody Houston of Ulm, Montana, to commemorate NWTF's 25 years of success. This one was donated to the Game Commission as a token of appreciation for the long-term partnership the agency has enjoyed with the Pennsylvania Chapter. A larger than life-size version will be featured at NWTF's 2000 convention and then put on display at the NWTF headquarters in South Carolina. The sculpture presented to the Game Commission will be displayed in the lobby at the agency's headquarters in Harrisburg, where all sportsmen can enjoy its beauty and reflect on what it stands for.



A Wonderful Season

By Thomas P. Smith

I COULD see Rick's gobbler hanging from the game pole as we neared the farmhouse. Little did I realize that this was only the start of a wonderful and successful hunting season. Usually optimistic, I had high hopes for the 1996 hunting season, but I never imagined our group would do so well. My three sons, brother and a friend would take eight deer, three turkeys and a bear. Compound bows accounted for five of the deer, and two others were taken during the muzzleloader season.

Rick started things off by connecting on the spring gobbler I just mentioned. About a week later my oldest son, Shawn, got a

gobbler on Rick's farm, and he also connected in the fall turkey season. Twin sons Todd and Chris had some productive days in small game season, Chris taking six squirrels in less than an hour one day, and several ringnecks also made their way into our game bags.

On the last Saturday of October, Shawn said, "Let's go archery hunting." Not an unusual statement in our family, except that the time was 2 p.m., and where he wanted to hunt was about an hour's drive away. I was about to object, but then considered how

little I had hunted so far that fall. I was taking two Saturday morning classes at Robert Morris College to finish my MBA, so weekend time afield was rare.

After a few minutes to gather things we were off to a favorite hunting spot. After an hour or so in my treestand, seeing nothing and getting pelted by

from a 10-yard shot from my Jennings compound bow. The buck was headed away from me when suddenly he turned and walked right under my treestand before turning broadside and offering a perfect shot. Two days later Shawn and I were at the head of that same hollow when he filled his fall turkey tag with a nice gobbler. The end of the week brought more success as



Rick took a 5-point on his farm in Greene County. He had two bucks near him, but the larger one, an 8-point, did not offer a good shot, so he dropped the 5-point with a well-placed arrow. Chris, using his Beaver County surplus tag — available in 1996 — closed out the archery season success of our group with a fat doe.

A week later we were bear hunting out of my brother Ken's

the first snow squalls of the fall, I headed for the truck. When I came out of the woods Shawn was digging around in the bed of the pickup. He greeted me with a big grin, and when I asked if he had seen anything he replied, "Just that 6-point over there," pointing to a buck lying on the gas line he had walked out on. All those practice shots at our full-size deer target paid off. In his stand for only 15 minutes, Shawn dropped the deer at 20 yards with a well-placed lung shot. After congratulating him on his first archery deer, we went to his grandmother's place and were told that Shawn's brother Chris had just taken a doe in Indiana County, about 15 miles from where we were hunting.

On Tuesday of the next week I connected on an Allegheny County half rack 6-point that dropped immediately

camp near Clear Creek State Park in Jefferson County. Bear season has been more of a social event for us than anything else. We watch football, have a nice dinner and discuss the upcoming deer seasons. We make our annual predawn trek to favorite spots, soaking in the beauty of the forest and hoping for good luck. The prior year we came close when Todd missed a bear on the first morning. This year while Shawn and I were walking to our stands he said, "What are we going to do if we get one?"

"Don't worry," I said. "There's not much chance of that."

Daylight was slow in coming as fog cut visibility somewhat. I had some difficulty finding my stand, so I spent the first hour behind a large oak. After the fog lifted I decided to go to the stand I had picked out the day before. About 10 minutes later I was comfortably watching the laurel cov-

ered ridge in front of me. A bird fluttered to my left, catching my attention and causing me to look toward a small opening in the laurel. There stood a bear. My shot broke the silence of the morning, and about 90 minutes after I had told Shawn not to worry about getting a bear out, I was field-dressing one.

The year continued to be successful. On the first day of buck season Chris scored on a Beaver County 5-point, using the 8mm Mauser I took the bear with. Then, during the first two days of muzzleloader season, Ken and I took Armstrong County does with well-placed shots from our 50-caliber flintlocks. Of all the drives we put on those two days, those were the only two deer pushed out. Ken and I were simply in the right spots.

On a warm Saturday in January, back on Rick's farm, we put deer out on every drive. Misfires, or mainly just smart deer

sneaking through, kept our Greene County bonus tags unfilled, but we all agreed that that day was just as special as the days when we took game.

We hunted Allegheny, Armstrong, Beaver, Greene, Indiana and Jefferson counties, taking big game in each. What a wonderful season, and the memories of those hunting experiences will last a lifetime.

In mid-September that year Shawn's, Todd's and Chris's grandfather died. He was an avid outdoorsman who loved his days afield and enjoyed the stories we told him. We never had the chance to share our 1996 hunts with him, but then maybe he knows of our good fortune. Someone allowed us to be in the right places, look the right way, and allowed the game to cooperate. Thanks, Grandpap; we miss you. □

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The Gift

I'VE ALWAYS heard that there are stages in the maturing process of a sportsman. As beginners, sportsmen just want to see how many game animals or fish they can kill or catch. After attaining a certain amount of success, they begin to hunt exclusively for trophy game or giant fish. The next step is to concentrate on a specific technique, such as bowhunting or fly-fishing. Some sportsmen may be lucky enough to one day attain the highest level of sportsmanship, the ability to thoroughly enjoy the time spent outdoors regardless of what's taken.

As a young man it was hard for me to imagine reaching that state of mind where I didn't care whether I harvested game or not. That was the reason we hunted, wasn't it? Don't get me wrong: I always enjoyed hunting, but the kill was clearly what I sought each time out.

My growth as a sportsman took a quantum leap one fall day while hunting with my dad. I was a cocky 19-year-old with the grand total of three "successful" wild turkey hunts under my belt. Dad, despite hunting for decades, had never taken a turkey.

Immediately after my classes at Penn State let out one day in

November, I rushed home to pick up Dad, and we headed to a farm we often hunted that usually held some turkeys. Dad had been recently diagnosed with cancer and was undergoing chemotherapy treatments at the time. His treatments often left him ill or weak, but he never complained. Because of his illness I told him to wait at the bottom of the hill while I tried to locate a flock. After reaching a ridge point directly above Dad I heard turkeys feeding on a bench below. I busted up the flock and birds flew off in all directions; it was a perfect scatter. The flock consisted mostly of young birds and many had flown downhill to where Dad was waiting. I couldn't contain my enthusiasm when I returned and explained what had occurred. More than anything in the world, I wanted to see Dad get a turkey, and I was hopeful that he just might do it on this beautiful afternoon.

Within minutes the first plaintive whines could be heard around us. At least four or five birds were nearby, and one jake was even trying out his first gobbles. I began filling the air with kee-kee run calls, trying my best to match the tone and rhythm of the wild birds. It seemed that every time I called, I received answers from all directions. Soon I noticed movement on Dad's right. It was a jake coming directly in. Slightly

By Bill Ragosta



to the jake's left was another young bird on its way in. Seconds turned into minutes until finally the two birds lost interest and vanished in the undergrowth. Why didn't you shoot?, I wanted to blurt out as I turned to face Dad. He must have known from the look on my face what I wanted to say, and I knew from the smile on his face and the twinkle in his eye that I didn't have to ask. Dad had simply been caught up in the moment. It wasn't that he had made the conscious decision not to shoot, it simply never crossed his mind that he should. My dad had just spent a gorgeous fall afternoon watching nature in all its glory with his youngest son. In his mind the hunt couldn't possibly have had a more perfect conclusion.

Although we clearly could have had other opportunities that afternoon

(turkeys were still quite vocal), we gathered up our stuff and quietly left. Neither of us talked on the way out of the woods. As a matter of fact, we never mentioned that hunt again. I didn't know it at the time, but that turned out to be our last hunt together. Dad's illness soon made him too weak to get around in the woods. A few years later the disease claimed his life. Without question, that day in the woods taught me more about humility and the sheer grandeur of life than any other lesson I've ever learned. To Dad, the whole episode was probably no big deal, having lived his life that way. To a hotshot kid who knew little about life, it was a real awakening.

I was fortunate to grow up in a big family (10 siblings) with parents who

were remarkably unselfish with their time. My mom always had time to let me think I was helping her bake apple pies or get dinner on the table. In reality, she didn't need my help, but she allowed me to believe that she did. Although she's become a successful novelist, Mom never looked down at being a housewife and raising a family. On the contrary, she seemed to take pride in keeping a spotless house and always providing for all her family's needs. She still does.

Dad always had time for each of us kids, although he worked hard to provide for all of us. Every evening after dinner was his time to wrestle with the kids or play ball outside. Before the youngest went to bed each evening Dad would put us all on his lap and read. My favorite books were the *Children's Bible* and the *Roosevelt Bears*. I'll never forget those reading sessions.

I believe that many of society's problems today are because families simply don't spend enough time together. Spending time with parents is how a child learns about integrity, honesty, hard work and all of life's other important lessons. I've tried to model my own parenting skills after what I learned from my parents. There are walks in the woods with my two boys and plenty of fishing trips. I know there are



many people who do not think hunting and fishing trips are wholesome pursuits for families, but I can only say that that is their loss. Maybe some of those people who believe that a rat or insect's life is as important as their child's life simply didn't spend enough time with their parents. It's not only that they place too much value on an animal's life, but that they place too little value on the sanctity of human life, and that's what is most disturbing.

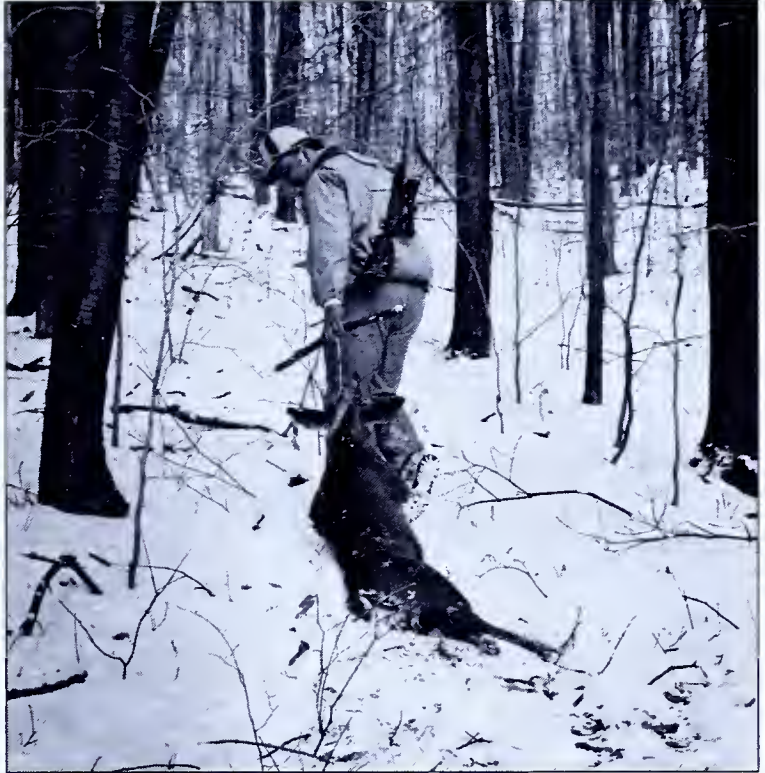
I'm a wildlife conservation officer, and I have a great deal of respect for wildlife and their habitats. Most of that respect I learned from my dad. He was never a great outdoorsman if you measure success by the game or fish that he brought home, but he had the rare gift of being able to put things into perspective and see life as it really is. For that I will be eternally grateful. □

Hunting Alone

By John D. Taylor

FRRIENDS are a good thing, and I am blessed with many. Yet many of my friends probably think of me as a wretch for not calling them to go hunting anymore. At one time hunting with a group of friends was very important. The last several years, however, I have been spending more time hunting alone, mostly out of a sense of needing the seclusion to find myself again.

Solitude is hard to come by today. With the amount of open space shrinking, time and distance a person needs to put between himself and the rest of the world to find solitude increases. While hunting in York County on the 1996 buck season opener, I could hear the constant flow of traffic, people going to school and work. After 23 deer season openers in Potter County, this seemed strange. Yet, in 1997 I noticed the roar of traffic on Route 872, north of the Austin Dam, from the front face of the Potter County mountain I was hunting on. Is anywhere really isolated anymore? I thought about this that night in the tent, looking up at the sky. The Milky Way divided the sparkling, shining sky into northern and southern halves.



THE LAKOTA Hanblecheyapi, or Vision Quest, sitting still and praying for a vision or other insight, often while fasting, has been part of Native American spirituality for thousands of years. The experience is designed to produce greater understanding. The long, silent wait and inner stillness is something deer hunters on stand can relate to. Occasionally it pays off, too.

Orion shimmered. And I had to smile, happy with the knowledge that blackness and stars and rain and bright sunny days, even car sounds, are all part of the same thing.

From the very beginning, people have banded together to hunt. The ability of groups to gather more game than a single hunter can do is precisely what formed the earliest associations in human history. Carleton Coon, in

The Hunting Peoples, a 1971 Nick Lyons book, wrote about how these relationships formed when several families joined forces to make the food gathering portion of their lives easier. This group effort allowed even denser population centers to develop and gave man more spare time. In time, establishing relationships for mutual benefit soon shifted into the animal kingdom as well, with dogs, horses and other beasts becoming domesticated.

Hunting associated with a group of people became the norm. A common thread joins Masai tribal lion surround-hunts in Africa; Medieval lords used human beaters to push fowl and other game into the waiting falcons; and the modern day deer camp, where family and friends gather to celebrate

more modern traditions under the guise of deer hunting.

Group hunting is fun. But what do you get hunting alone that you cannot get hunting with a group? Alone, you are the master of your own destiny. There is challenge as well as danger in this: The challenge is not having the input or abilities of other hunters who could help you find game. The danger is needing to rely on yourself in the event of a fall or other emergency. But experienced "lone wolf" hunters learn to deal with the dangers by not taking foolish chances, and by hunting differently, more carefully, when alone. Other qualities of hunting alone include a sense of accomplishment, the opportunity to connect with the Creator, a sense of perspective and, most important, solitude. The need for solitude is very real.

In his 1988 Free Press book, *Solitude: A Return to the Self*, psychologist Anthony Storr argues that the importance of solitude and its value in making people more whole is overlooked by a contemporary culture focused more on group relating.

"Removing yourself from the hurly-burly rush of humanity is important for personal understanding," Storr writes, arguing that the genius of many poets, writers and other cre-

"THERE ARE times when the most gregarious of hunters yearns to miss a bird without unsolicited comments, to hunt without having to keep track of other men, to feel that the glorious wilderness is there just for him and his dog."



ative people comes from solitude. Imagination and solitude have important links. Storr points to many great thinkers, self-admitted loners with vision who used solitude to come to new levels of understanding about themselves and their world. These people include: Isaac Newton, political philosopher John Locke, historian Edward Gibbons, poet Walt Whitman, psychologist Carl Jung, writer Fyodor Dostoyevsky, classical musician Beethoven, even explorer Admiral Byrd.

Hunting people have known about the importance of solitude for some time. Many Native Americans, for example, use solitude as an important part of religious ceremony, a way to prepare for the reality of the world.

In *Mother Earth Spirituality*, a 1990 Harper publication, Ed McGaa, an Oglala Sioux lawyer and writer describes the Hanblecheyapi, or Vision Quest, that has been a part of Lakota Sioux spirituality for thousands of years. "In the old days," McGaa writes, "a person who was Vision Questing would seek out a secluded spot, usually a butte or rock outcropping (native people in the East often used platforms in trees) and sit, praying for a vision, usually while fasting." The Hanblecheyapi would last up to four days. "Today's Vision Questers go for shorter periods of time," McGaa writes. "But they see all kinds of wildlife, which is usually viewed as a message from the Great Mystery. The experience is designed to produce a revelation, a means of self-improvement, some understanding of yourself gained in the inner stillness created by spending a long time sitting quietly in one place."

Deer hunters can relate to the Hanblecheyapi. Stand hunting, silent but for the wind and twitter of black-capped chickadees or scratching of squirrel claws on oak bark, offers deer hunters a chance at a form of meditation.

Deer hunter and author John Weiss in *Advanced Deer Hunting*, a 1987 Outdoor Life book, calls the wait on a deer stand

"The Vigil," and writes that it is simply alien to normal modern life. "The modern, fast-paced lives we lead tend to make many of us feel restless and uncomfortable when things don't take place on schedule," Weiss says, "and we forget that deer don't necessarily follow timetables." Usually, northern deer hunters must also contend with intense cold, snow and wind, which after hours of waiting can cause enthusiasm to wane.

Mental conditioning is important for overcoming these circumstances. Weiss suggests that deer hunters adapt a mantra to remind them that their deer will soon be there. He also suggests focusing on waiting an hour at a time rather than several hours at a time, ignoring distant shots and staying focused, especially during the 11 a.m. to 1 p.m. period when deer are often on the move. Also, deep breathing, isometric exercises and thinking about other things — teachers can make lesson plans, business people can work out sales meetings — can keep you sharp.

"All in all, waiting on stand for a deer is one of hunting's great paradoxes. Sitting still seems to require no skill at all, but in reality, it calls for plenty . . . (the stand hunter) must know how to sit patiently and comfortably," Weiss says.

"If you're lucky, your buck will come along on the very first morning. But perhaps you won't see a buck for several days. Sooner or later, though, it will come along. And when that handsome deer materializes, you will know that your wait has been worthwhile."

Perhaps adding a sense of Hanblecheyapi seeking messages from the Great Mystery that surrounds all of us can also help deer hunters on stand. But don't forget to pack plenty of extra sandwiches. One for 9 a.m.,

another for 10:30, 11:15, and then there's lunch . . .

A sense of something special going on when a person hunts alone isn't limited to deer hunting. Turkey hunting is another solitary sport, especially in the spring, when it's a battle of a gobbler's superior senses and intuition against a man's simple wits.

Joel Vance, in *Upland Bird Hunting*, a superb 1981 Outdoor Life book, describes a lone backpack trek into the Missouri wilds for spring gobblers. Vance cooked his evening meal over a campfire to the call of a whippoorwill and went to bed hearing a gobbler salute the setting sun. But during the night, he awoke to blackness. "It was that still time when the life forces have wandered quietly into deep, dark, silent pools. It was a grim moment when I knew that man is mortal, holding his ultimate fate at uneasy arm's length.

I realized with a dry mouth that I am not the very big boy I thought I was and I was afraid and alone." Hearing the whippoorwill's call again, he didn't feel so lonely. Until he crawled out of a warm sleeping bag and into the cold night, three hours before dawn. After grabbing some breakfast bars (lots of breakfast bars) he was out in the woods setting up near a gobbler's roost.

He heard a bird, called to it — ". . . there is no thrill in hunting . . . comparable to the adrenal fix offered by a meeting with a choice gobbler" — and ended up between two dueling tom turkeys. The birds came in close, right on top of one another, then they saw him. And before he could shoot, the birds flushed. Vance, angry at missing a chance at a bird, frustrated with things out of his



THERE ARE situations when one man with a good dog can be the most effective combination for hunting birds. Solo hunters should concentrate on working small strips of cover.

control, writes that he lowered his gun, and just sat back, taking it all in. "The sunlight crept across the clearing. A gray squirrel flicked a tail at me, skittered across to another tree. A redbird whickered brassily. Gradually, my bleak mood lightened and I felt a smile tease the corner of my mouth. It would make a hell of a story around bacon and eggs and brawny camp coffee. After all, how many guys call up a pair of bull gobblers and, but for a freak of fortune, have them . . . at 10 yards?"

In *The Wildfowler's Quest*, *Field & Stream* conservation columnist George Reiger writes that he must follow an inner compulsion to hunt waterfowl alone several times a season. "I do this when the weather urges me to, or when I need to put a problem or project into perspective. You can hunt safely alone only in places where you don't need a boat. I usually hunt alone in

the marsh across the road from my home. In solitary hunting, I rediscover the reasons I abandoned conventional pathways 20 years ago to make my way, my way. Even the most frustrating winter week is set aright by a nor'easter flooding the marsh and concentrating wildfowl where I can sit and watch them come.

"Solitary hunting suits anyone who needs religion in his life but not congregations. The vaulting sky over a marsh is higher than the tallest cathedral. The marsh is grander than the greatest temple. The day dawns for just you and the ducks. It is a soul-wrenching experience — a lesson of mortality amid an infinitude of life. Solitary visits to a marsh transfigure mere duck hunters into that most profound embodiment of the sporting fraternity, the wildfowler."

Grouse hunting's quintessential writer George Bird Evans, in his 1971 classic *The Upland Shooting Life*, divided grouse hunters into several categories: the "reporter," who gives a blow-by-blow account of his hunts to friends, the "social hunter," for whom the greatest pleasure in the sport comes from sharing the experience with acquaintances. Evans defines the lone grouse hunter — and he called himself a loner most of the time — this way: "I'm certain the social hunter thinks the loner is an incomprehensible eccentric who shoots alone for selfish reasons, content to forgo companionship because he doesn't want to be annoyed by other people's idiosyncrasies, but at the same time I suspect he envies the loner his freedom to hunt as he pleases."

"There have to be times when the most gregarious of hunters yearns to miss a bird without unsolicited comments, to hunt without having to keep track of other men, to feel that the glorious wilderness is there just for him and his dog. It is this undiluted immersion in beauty and tension and action that places lone shooting above other forms for those who have experienced it."

Evans goes on to describe a "sub-species" of the loner: the "purist." The purist " . . . is on a cloud when things go well; when things don't happen according to his standards — his dog's work, his shooting — he would be best let alone, for no one is a deeper griever. Angels hum softly," Evans writes, "when events occur in such a rare combination as to satisfy (the purist). Trying to make sense of a purist is like trying to understand an Englishman — the more serious he is, the more unbelievable he appears."

Pheasant hunter and writer Steve Grooms, in *Modern Pheasant Hunting*, talks about how although pheasant hunting is often considered a "gang sport" by many. "In fact, for much of the season, one man and a good dog are the most efficient party imaginable." Grooms says larger parties gunning a field can be a hassle. Group shooting raises safety issues. How well do you really know (trust) everyone in a group to hunt safely. Solo hunters should focus on working birds in strip cover, skinny draws, irrigation ditches, along fence lines, where the hunter and his dog can force a flush more easily.

Seeking solitude, or for another motivation, the lone hunter should enjoy being afield on his own. Some practical considerations include: Telling someone else where you are going and when you will be coming back; being prepared for emergencies, both mentally and with a small survival kit; knowing how to navigate the area you intend to hunt with a map and compass; also, not exceeding your physical and emotional limits.

Why not try finding a new perspective on yourself or seeking messages from the natural world around you. Although Isaac Newton has already discovered the laws of gravity, you never know what you might find. □

The old adage we are what we eat also applies to our four-legged hunting companions.

Fast Food Won't Cut It

By John W. McGonigle

JUST 40 minutes into the hunt and your dog is panting heavily, tongue hanging out. While he is still quartering to front, his pace is little more than a slow trot. You've given him water a couple of times, as well as several short rests after working segments of particularly heavy cover, but still he seems about out of gas.

Your hunting partner suggests getting his dog from the pickup parked at the old barn, even though the morning's plan called for your dog to work the entire loop that normally takes you back to your starting point in about an hour and a half. With a shrug and a weak smile you agree.

Your hunting dog is remarkably similar to a human athlete. Not only does he (or she) require physical conditioning prior to the hunting season, he also has different dietary requirements during his conditioning program and throughout the season.

Just as the best professional athletes



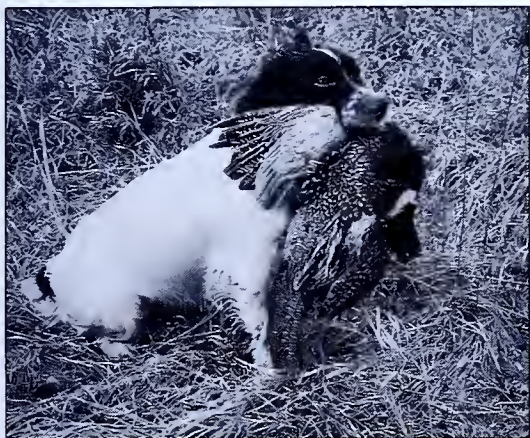
FEEDING a hard working dog for optimum performance and health is a year-round proposition and requires that an adequate degree of physical conditioning must be maintained.

maintain a fairly high level of physical conditioning throughout the year, so too should your four-legged hunting companion. In both cases a major factor in a good level of conditioning is maintaining a stable, healthy body weight.

Both dogs and humans become highly stressed physically and mentally if, after an off season of inactivity and weight gain, they are pushed too hard in a conditioning program. It's likely that many of us have experienced this ourselves and found it to be not only unpleasant, but also counter-productive to our goal of hunting long, hard miles.

Feeding a hard working dog for optimum performance and health is a year-

round proposition, and requires that an adequate degree of physical conditioning must be maintained. It is impossible to separate diet from physical conditioning. When coupled with a proper exercise regimen, feeding an active hunting dog is relatively easy since the advent of scientifically



TRACK your dog's body weight, keep it on a regular medical and conditioning maintenance program, and use a quality food balanced for its level of activity. Do this and the dog will pay you back where it counts — in the field.

balanced commercial dog foods formulated especially for hard working dogs. Rarely are dietary supplements needed, and then it is best to add supplements only under a vet's watchful eye.

Using information supplied by the Ralston Purina Company we'll examine some factors that determine if commercial foods are up to the task of adequately caring for your hunting dog. Purina has the oldest and largest facility in the world devoted to the study of animal nutrition, maintaining a pet care facility since 1926. Presently they house and research the nutritional needs of approximately 1,000 dogs and 900 cats.

Palatability studies are of prime importance because a food's nutritional benefits are irrelevant if the dog won't eat it. In other words, it is imperative that the food tastes good. Digestibility studies are done to determine what percentage of nutrient usage is being realized from the dog's diet.

Food intake is closely monitored over a 14-day period. During the last four days of the test period fecal matter is collected, weighed and analyzed in order to calculate the percentage of nutrients used by the dog. Foods with high digestibility quotients produce smaller stools because more of the food is used, thus less becomes waste.

Maintenance studies determine if a food will maintain normal body condition and weight for an adult animal. Testing takes place for 26 weeks, and is closely monitored by a veterinarian who conducts thorough examinations, including blood chemistry profiles. A food that passes this test is labeled as complete and satisfactory for adult dogs, but is not necessarily recommended for growing puppies or pregnant females. Although reproductive studies are conducted to determine a food's ability to support a pregnant, and then lactating female, this is not relevant to our examination of feeding a hunting dog. Growth studies are also done to ensure adequate growth in puppies, but again, this is not relevant to an adult hunting dog.

As your dog's preseason conditioning program gets underway, you must increase his feed as his work output increases. A good preseason conditioning program starts early, certainly by July. It can and should start slowly, taking the dog(s) for a half-hour walk three times a week. After about three to four weeks the walks should be lengthened to one hour, still making sure to get out three times each week.

In hot weather, early morning is the best time to get out with your hunting partner. There is some dew on the ground and the earth is as cool as it will be at any time during the day. Carry water to keep your dog refreshed. If necessary, exercise your dog in the evening, being careful to avoid hazards, such as busy roads. Make sure you

are in before dusk to avoid the possibility of an automobile mishap with your dog. Giving your dog some retrieving work on land and water breaks up the monotony and provides good conditioning, while maintaining his interest. After eight weeks, exercise periods should be increased to five days a week, lasting at least an hour. Reestablish discipline with basic obedience commands as you work on conditioning and you'll find your hunting time is more enjoyable and productive.

Monitor your dog's weight regularly. Continue to increase his food as his conditioning program escalates, at all times keeping him at a weight consistent with good field performance. My vet advises, "To determine your dog's optimum weight you should be able to easily feel his ribs when you run your hand down his sides, but you should not be able to see them." On the other hand, I know some field trialers who feel they are more successful when they run their dogs a little on the lean side. I try to follow my vet's recommendation.

A dog's diet should consist of a high-energy food with at least 26 percent protein and a digestible caloric count of 1,750 calories per pound. In

addition, elevated levels of vitamins, minerals and fats should be present. Usually such a high-energy food can be fed just once a day, as during the rest of the year. If your dog is especially hard working, that is, hunts long hours for several days without a break, perhaps he will require two feedings if he shows signs of weight loss. In either case, moistening his food with warm water usually increases palatability and encourages him to eat the larger amounts of food his body needs.

Another thing to consider is that cold weather requires more calories to maintain body warmth. Each 10-degree drop in temperature requires a food increase of approximately 7½ percent. With the combination of extremely cold weather and an elevated workload, dogs should be changed to a twice a day feeding pattern.

Many top quality foods are on the market. Remember, though, above a certain performance level the expense of some premium foods is unjustified. Feed more as work and cold increases, track your dog's body weight, keep your dog on a regular medical and conditioning maintenance program, and use a good quality food balanced for his level of activity. Do these things for your dog and he'll pay you back with interest where it counts, in the field. □

DOG TRAINING REGULATIONS

There is no closed season for training dogs.

A hunting or furtaker license is not required for dog training.

Dogs may not be trained on private land on Sunday without the landowner's permission. (Permission should be obtained regardless of the day.)

A person may not carry a rifle, shotgun, or bow and arrows while training dogs.

Dogs are not permitted to injure or kill wildlife. Owners are liable for any wildlife killed or injured by dogs they are training.

There are appropriate penalties in the Game and Wildlife Code to deter owners from permitting their dogs to chase big game. Any person who destroys a dog (licensed or unlicensed) attacking a big game animal must report the incident to the dog's owner or a Game Commission officer within 48 hours.

All hunters are urged to respect dog owners and their sport. Dogs can be attracted by electronic calling devices as well as turkey calls. Be sure of your target. Remember, sporting dog owners are enjoying their sport at the same time you are in the field enjoying yours. Mutual respect will serve all sportsmen well.



The Raccoon Moon

By Jim Romanelli

IT WAS a cool late October evening in 1965 on my uncle's farm in Penn Run when we were all at the supper table finishing up our meal. Tennessee Ford's "16 Tons" was on the radio, and we were looking forward to our dessert when Uncle Dick got up from the table, looked out at the window at the moon and said, "Boys, it looks like a raccoon moon tonight. I think I'll take Jim for a walk. Anyone wanna come?"

My brother Joe, cousin Rick and I looked at one another and in unison said, "We do."

We didn't know what a raccoon moon was, but we knew that Jim was Uncle Dick's bluetick hound, and anywhere those two

went was bound to hold an adventure for three fellas between 9 and 13 years of age. Needless to say, we were hot on his heels and out the door like three vanishing vapor trails while my mother and Aunt Mary were left spooning out the ice cream.

Uncle Dick grabbed a couple large flashlights from the garage, and we were on our way to the barn to fetch Jim. I remember on the way up through the cornfield how big and bright the moon was and being surprised at how we were able to make out the shadows of the harvested rows all the way up to the woods line without the aid of the flashlights.

When we got to the barn Jim must have known what my uncle was up to; he was in fifth gear trying to get loose from his chain. Uncle Dick leashed him and we were on our way with the dog straining on the leash.

Once we got into the woods the moonlight penetrated the trees just enough to show the shadows on the trails. We used the flashlights just to scout the immediate ground and to keep the smaller, low-lying branches from tripping us and scraping our hands and faces.

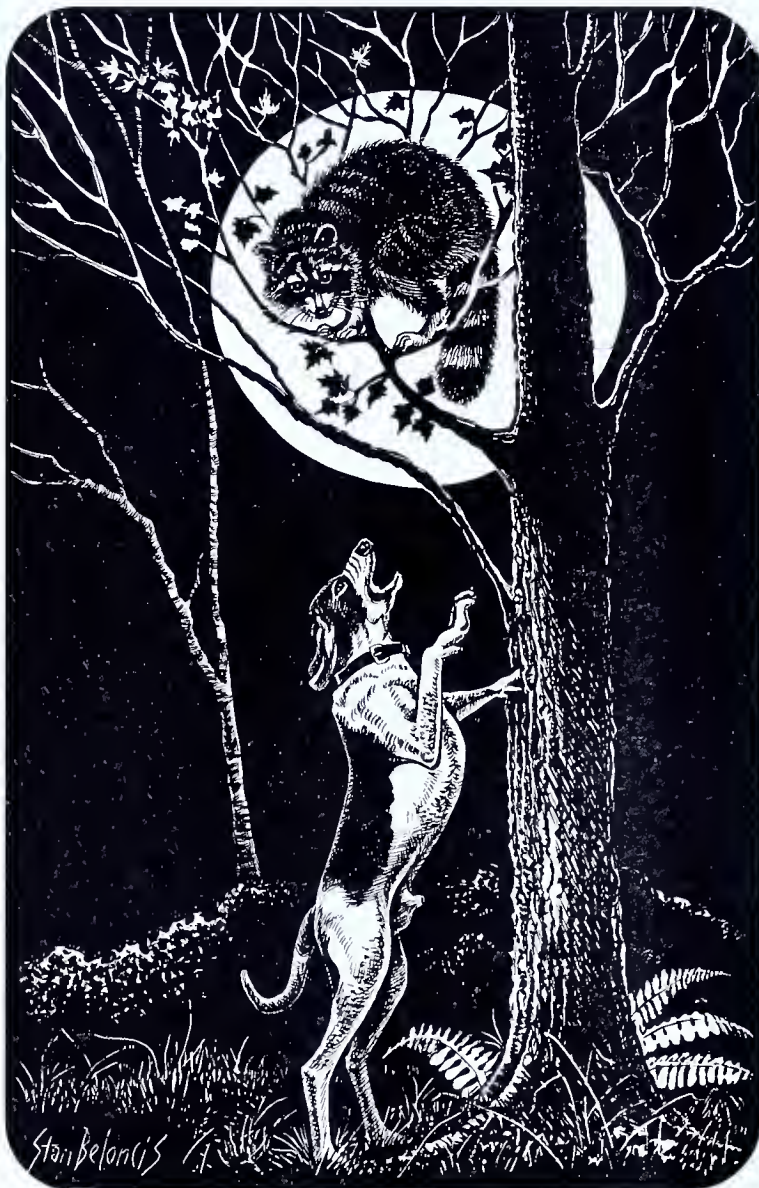
In just a few minutes, when we reached the creek bed, Jim sounded off and Uncle Dick said, "Okay, boys, here we go." He then unleashed Jim. Well, that dog took off as if he were shot out of a cannon, and he kept us apprised of his location without fail as we tried to keep up.

We thought it was fun, trying to keep up with our uncle, who was trying to keep up with the dog. I don't know how far we went, but I do recall tripping and laughing as we climbed up and down a couple of wooded hillsides and a cornfield until, after about 20 minutes, we heard the tone of the dog change.

Uncle Dick said, "He's got him treed now, boys, let's get going." I then thought to myself, get going? What have we been doing all this time?

It wasn't long until we found Jim attempting to break the Olympic high jump record, trying to reach a raccoon up on the outer branches of a young maple tree. We watched the show for a couple of minutes, to catch our breath. Then Uncle Dick leashed Jim to a tree away from the action, and we moved in under the quarry to get a closer look. We shined both lights directly above and located the largest raccoon I ever saw.

I don't know how heavy it was, but it was enough to make the small limb bend quite a bit. As a matter of fact, I doubt if three seconds had passed before the limb gave way under the



weight and dropped that old raccoon right in the middle of us.

Needless to say, we were excited, the dog was excited, an angry raccoon was excited, and my uncle was trying to keep track of the melee that was headed in all directions.

Being the oldest, I figured I should take some responsibility in calming things down, so I headed for Jim to let him go, so he could get that raccoon away from everyone. Well, if you think things were confusing before, you should have seen what happened when I unleashed Jim. He beelined straight for the raccoon. It was just too bad Uncle Dick was in the way, because that dog caught him right behind the knees and knocked him into a briar patch full of thorns.

We all received a first-class education on four-letter words and their derivatives, most of which we had never heard before. By the time Uncle Dick got out of that prickly patch and finished exercising his vocabulary, Jim had the coon cornered under a couple of half buried rock slabs.

I figured the confusion was just about over when Uncle Dick bent down to pull Jim away. But when I heard Rick say, "Don't worry, Uncle Dick, I won't let that coon get Jim," I knew we were in for a little more excitement.

I quickly turned my light in Rick's direction (not 10 feet away) and saw him trying to lift a large stick. Unfortunately, Uncle Dick was standing on the other end, and when Rick lifted his end, Uncle Dick fell back, landed on top of the dog, and smacked his head on a rock. That's when the raccoon made its break. In high gear it ran over the both of them, right between us, and headed for the next county.

Uncle Dick was laid out cold while the dog was trying to weasel out from under him to continue the chase. We all went over to see if he was still alive. Joe pulled the dog out, which quickly slipped through his grasp and immediately pursued the raccoon. It was then that Uncle Dick moaned and we knew he was slowly coming to.

Our first fear of whether Uncle Dick had gone on to the happy hunting grounds was over, but as we stood there with that "Three Stooges" look, the second fear set in: What's going to happen to us now? Do we cut bait and run or stick around and hear the music from Uncle Dick. We chose the latter, because we had no idea how to get back to the farmhouse in the inky-black shadows of the night, and camping out that evening in the spooky woods didn't seem real appealing.

It wasn't long before Uncle Dick recovered. It was easy to tell, because he began practicing that vocabulary in earnest again, while holding onto his head and looking for his flashlight. I don't mind admitting that the 30-minute hike back home seemed like an eternity. The positive side was that by the time we reached the farmhouse, Uncle Dick was finally talking English that we were able to understand.

When we walked through the door my Aunt Mary saw him holding onto his head with a bloody hand and asked what happened. He relayed the story as best he remembered while we filled in the blanks.

By the time we got through telling the story the ladies were hysterical and even my uncle, who was nursing a goose egg with a sock full of ice, began to see a little humor in the whole thing.

The three of us just began to relax a little when Mom quickly regressed the recovery by asking, "Where's Jim?" Three things took place at that moment: Uncle Dick's smile quickly took a turn for the worse; we exhibited that Three Stooges look again, because we knew where Jim wasn't; and right then and there we realized that camping out on this raccoon moon night might not have been that bad of an idea after all. □

WINDFALL



THE WIND always sets me to wandering. It had been a windy day in the uplands, a sparkling September day free of the oppressive humidity of summer, perfect for hiking. After a 7-mile jaunt, I sat against a tree at the head of a narrow hollow to rest. The wind had subsided; only a breeze caressed the settling woods. I dozed against the gently swaying tree, but stirred when I became aware of an odd clicking noise, like the jaws of some angry animal repeatedly snapping shut. I couldn't pinpoint the source, only that it was coming from somewhere nearby to my left. The sound intensified — crackling and splitting — when not 30 yards below, the trunk of a huge black cherry creaked then splintered. As if in slow motion, a great space slowly breached in the thick canopy as the tree toppled and then rushed to meet the earth. Veils of grapevines snapped and whipped through the air like rigging ripped from the falling mast of a sailing ship shattered by a cannon fusillade. Thick boughs on nearby trees cracked like rifle shots, fractured by the falling tree, and the ground shook when the tree collapsed heavily to earth. It was as if a wooden bridge had been suddenly and violently dropped from the sky to span the width of the little hollow. I was completely unnerved because I had considered sitting against a stump that ended up being smashed into sawdust and splinters.

The wind always sets me to wondering. In destruction there is always an element of horror, and this was almost like witnessing a car wreck. Eventually all trees must fall, and it is a common event, but rarely witnessed in a natural state. I walked across the tree bridge as other animals surely would, and sat in the middle, legs dangling. In the destruction was the element of creation. Light streamed in, which would allow other plants to prosper. Deer or grouse might seek cover in the latticed windfall.

Later that night, the wind rose again and I was awakened by thorny branches scraping against bricks, screeching across the window. I lay awake, wondering if that gentle nudge from the wayward zephyr finally toppled that old tree, exerting just enough force at the end of a windy day to send it roaring to earth.

The uneven heating of the atmosphere results in variations of pressure that cause air to move, as does the earth's rotational force. Rotation at the equator is about 1,000 mph and it drags an ocean of air behind. Wind is air that moves horizontally along the surface of the earth. Air that moves vertically is called ascending or descending currents, not wind. Outdoors people pay close attention to the wind as it usually affects our various pursuits. Hawk watchers know that strong winds can bring rivers of broad-winged hawks and other raptors streaming along our ridges. Dove hunters would do well to take along some extra shells on blustery days, when the birds ride strong tailwinds. A steady, moderate wind that cools us on a summer hike may cause frostbite in winter. Children can learn quickly about wind chill by blowing on hot soup — bad manners but good science. Most deer hunters have experienced a backing wind, one that shifts counterclockwise, sometimes spooking deer.

The winds have shaped our destiny, and we have come to know them. In the second century A.D., the Athenians built the Tower of Winds, which named the eight directional winds, and personified them in sculpture. Prevailing winds, regional winds and those of significant force are identified by name. My weather guide lists more than 40 different names for the winds of North America. Among the more colorful are: Chinook winds, which melts the snow over which it passes; the Chocolate Gale of the Gulf

of Mexico; and the Cow Killers, or Palousers, dangerous winds of eastern Washington and northern Idaho. From other parts of the world are Japan's Narai, Iran's Wind-Of-120-Days and the Sirocco, a detested desert wind that sweeps out of the Sahara.

The highest wind velocity ever recorded was in April 1934 at New Hampshire's Mt. Washington at 231 mph. I asked Paul Knight, Pennsylvania State Climatologist and instructor of Meteorology at PSU what the record wind speed is for Pennsylvania, and his reply was that this was a very difficult

question to answer. Reliable wind data is recorded at airports, and in July 1992 a gust of 83 mph was recorded at Pittsburgh airport, but he felt certain that this was not the highest speed. The Great Appalachian Storm of November 1950 and Hurricane Hazel in October 1954 produced hurricane force winds here, but before reliable wind records were kept. In the November storm, wind gusts reached 108 mph at Newark, NJ. Knight also said that the highest estimated wind speed was during the Wheatland Tornado in May 1985 when, according to damage surveys, the winds exceeded 260 mph.

Pollen, spores and some seeds are dispersed by the winds. Strong winds prune the forests and hasten leaf fall. Author Stewart Edward White wrote "I have always maintained that if you looked closely enough you could see the wind — the dim, hardly-made-out, fine debris fleeing high in the air." Wind can also be seen on the surface of still water; look closely and you will see a kind of writing, a beautiful calligraphy of sorts. The wind is both minstrel and phantom, playing a hollow tree like a flute, or flinging bushels of leaves up the chute of a tram road as if raked by a ghost. Wind sculpts sandstone cliffs into wondrous abstract monuments, and weathers the faces of those who spend much time outdoors. Trees and shrubs on a windy bluff become stunted and contorted into artful shapes that inspire bonsai masters.

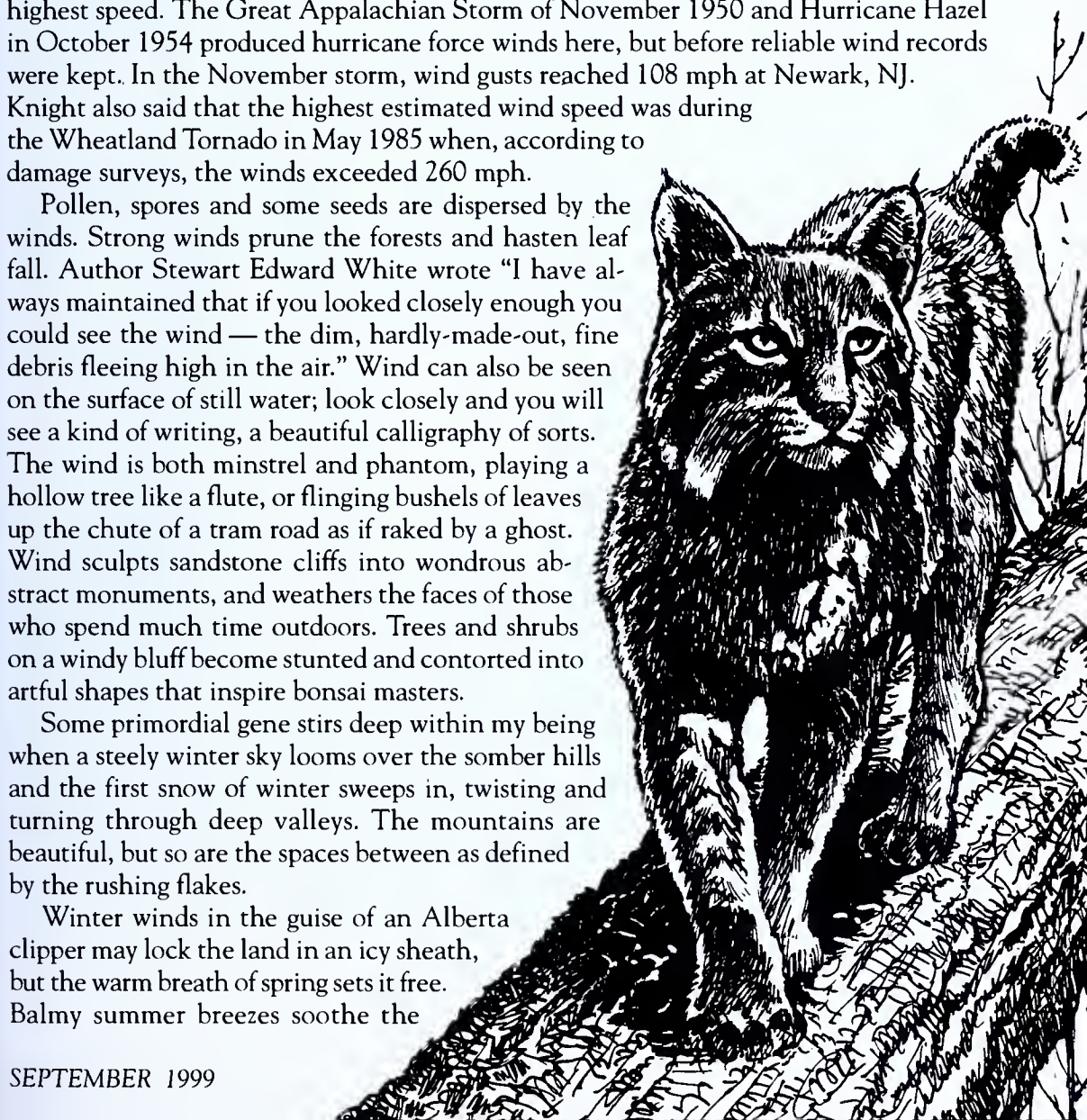
Some primordial gene stirs deep within my being when a steely winter sky looms over the somber hills and the first snow of winter sweeps in, twisting and turning through deep valleys. The mountains are beautiful, but so are the spaces between as defined by the rushing flakes.

Winter winds in the guise of an Alberta clipper may lock the land in an icy sheath, but the warm breath of spring sets it free. Balmy summer breezes soothe the

PENN'S WOODS

SKETCHBOOK

BOB SOPCHICK



soul, but just when comfort turns to lethargy, along comes the sprightly winds of autumn, charged with an invigorating urgency, prodding all to step along quickly or get left in the breeze.

A DOE and her fawns walk through a large patch of tree-club moss carpeting a broad clearing. Their passage disturbs the golden spore-laden candelabras rising from these ancient plants. I am in the woods at the edge of the clearing and the doe senses that something is wrong. She stamps several times and little yellow explosions erupt. The wind shifts slightly and she flicks her tail, stepping theatrically. When my scent reaches her, she snorts and the trio trots away, leaving a golden trail that rises and disappears on the breeze.

Tree-club moss, *Lycopodium obscurum*, also known as princess pine or ground pine, is not really a moss or a short pine tree, but more closely related to horsetails and ferns. It has a primitive lineage, being one of the earliest plants to appear on earth. Princess pine is insect resistant and produces a kind of antifreeze. The tiny spores were once used to coat pills, to prevent them from sticking together, and as a medicinal powder. They were also used as an element in early flash photography and in the manufacture of fireworks. The pollen dust is extremely inflammable, and in 17th century England was used for special effects during the performance of Shakespeare's plays. A handful of lycopodium powder thrown onto a flame produces a dramatic blue flash like lightning.



LAST FALL I came close to killing a big 8-point buck by using a tactic that I used to catch a "fox" long ago . . .

It was a Saturday afternoon in October at a weekend camp for kids. The highlight of the day's events was a contest to see who could catch the "fox," an athletic teenager wearing a red shirt, who would lead the pack of 20 kids over hill and dale and through the woods on a merry chase. Whoever brought back the fox's tail, a red bandana looped through his belt, would receive five silver dollars. The fox took off across the broad field, kids yelping hotly and wailing like hounds in hot pursuit. I stayed at home base, watching the pack fade into the distance. The counselors finally prompted me to go, but I took off in the opposite direction. I ran up into the woods and listened to the distant meanderings of the bawling pack for half an hour. Several times their cries went silent as the fox hid and rested, then resumed, swinging in my direction. I knew the fox would have to circle home soon. I walked farther up into the woods and hid just off a path. I could see the counselors below, standing at home base.

The pack was coming along the crest of the hill, and I can recall in exact detail the panting fox, his face as red as his shirt, running down the path. He stopped and hid behind a big tree with his back towards me, peering around at the pack that ran by, following a trail along the ridge. I came up behind him, slow and easy, and yanked the red bandana from his belt.

The startled fox spun around and then laughed. "Where'd you come from?" he said. While the fox collected the kids, I walked down to collect the silver.

Forty years later and back to the buck. Dad and I were hunting the same hot scrape line in ground blinds about 60 yards apart. Just after sunrise I heard Dad's arrow clatter through the treetops. After a while I walked down to his stand. He had a good shot on the buck, a bruiser 8-pointer, but his release malfunctioned as he was pulling down on the buck. When the arrow took off, so did the deer. "Which way did he go?" I whispered. Dad pointed and I stalked off in the opposite direction.

Instinctively, I looped up through the woods feeling that I would run into the buck. I walked out onto an overgrown powerline, the wind in my face. As I topped a rise I saw the buck coming right at me along the edge of a triangular woodlot where two powerlines converged. I dropped down into the weeds. He stopped eight yards away, but was screened by a copse of tall weeds. I crawled through the yellow grass around the weeds, and got up on one knee. As I came to full draw the buck turned, facing directly away, staring into the woods. No vital area was exposed and I sat there, watching him raise and lower his tail. He was so preoccupied that I felt I could have sneaked through the grass and grabbed that flag, like I did on the fox so long ago.

I whistled softly but he ignored me and trotted straight into the brush. I quickly ran around the other side of the woodlot and was ready for him to emerge on the trail that came out onto the second powerline. A minute later two does trotted out 70 yards farther down, the buck behind them. I slid along the woods but the buck took off, chasing the does.

Remarkably, as I stood there, a tremendous 10-pointer came out of that same woodlot, but also out of range. He stepped along slowly, stiff-legged, as if walking on ice. Golden-rod and milkweed seeds drifted like confetti as he swaggered through the weeds, ears laid back, flared nostrils reading his lines from a script written on the wind.





"Goos

I first heard the term
fall morning, from
Frank Plewa, while
the next flock of C
word imagination -
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KYLE SNYDER, middle left, anxiously awaits for the next flock of Canadas as the morning mist begins to burn off. He'll remember cool fall mornings spent in a goose pit for years to come. **FRANK PLEWA**, bottom left, knows all about "goosination." Make no mistake about it, if Frank hears what are actually geese in the distance, he'll bring them in. Despite liberal seasons, resident Canada geese, below, remain plentiful. Geese are a great way to start off a new hunting year.



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— Bob D'Angelo



John Plowm



J.R. WILLIAMS, above, got this big Chester County honker — his first ever — during last year's early resident Canada goose season. More than 115,000 geese were taken by hunters in Pennsylvania in 1997 (the latest year in which harvest statistics are available). Don't forget, in addition to a federal duck stamp for those hunting waterfowl, all migratory game bird hunters are required to obtain and carry a Migratory Game Bird License (\$3), available from license issuing agents.





FIELD NOTES



Not Too Much Too Ask

BUTLER/LAWRENCE — My two sons, 7-year-old Cody and 5-year-old Zachary, are taking to my new job just fine. Recently, I brought home an orphaned kestrel that we kept for a few days until it could be taken to a rehabilitator. The boys helped care for it and learned firsthand about its feeding habits after watching it eat a roadkilled chipmunk. Now they eagerly await my arrival each day to see what I might bring home. I did receive strict instructions from my wife, though, to "Just limit it to animals that are still alive."

— WCO RANDY W. PILARCIK, PROSPECT



Didn't Like the Duds

WARREN — Fish and Boat Commission officer Mark Kerr and I visited the Upper Allegheny Blackpowder Association rendezvous at Pittsfield during the Memorial Day weekend. As we were walking around and introducing ourselves to the re-enactors in authentic dress, one young man asked, "Sir, where did you get the funny looking clothes?"

— WCO DONALD R. DAUGHERTY, JR.,
COLUMBUS

Bag Full of Memories

ERIE — On the last day of spring gobbler season I checked a man from Ohio hunting on SGL 101. After noticing that he still had his deer and fall turkey tags, I asked him if he had hunted much. "Yes, and I didn't have much luck but had a great time, and I'll be back next year," he replied.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Common Problem Nowadays

It seems that coyotes, foxes, owls and hawks take the brunt of the public's blame for dwindling pheasant populations, but after spotting four dead pheasants on one stretch of road in a state game lands here in the southwest, it seems the automobile may also play a big roll. Maybe the problem is human encroachment and not predation. I'm sure the predators would support this concept, as several of them were also dead on that same stretch of highway.

— LMO GEORGE J. MILLER, PITTSBURGH

Wrong Number

BRADFORD — One day my wife took a call from a lady who wanted something done about the static over her phone line. After she finished complaining, my wife told her that she had called the local WCO and not the phone company.

— WCO WILLIAM A. BOWER, TROY

Following the Law to the Letter

Last fall Dan Norton Jr. from Beaver Falls downed a goose from a blind at Pymatuning, and not wanting to be guilty of wanton waste he asked Food and Cover Corps workers Dick Polley and Cecil Calladine for help. It seems his goose had ended up on the roof of the crew headquarters building.

— LMO JERRY A. BISH, HARTSTOWN

High and Dry

CRAWFORD — One day last spring, a Lake Erie charter boat captain noticed a nesting mallard on the flybridge of his vessel. When the boat would go out early in the morning, the hen stayed on the nest, seemingly enjoying the ride. When the boat reached its destination 25 miles offshore, the duck would fly back to the marina, and when the boat got back she would fly up with a *quack* and continue nesting until the following morning.

— WCO DAVID L. MYERS, LINESVILLE

To the Letter

TRAINING SCHOOL — During our first week, our resident instructor told us to tear down our bunks for inspection, then he left the room. When he returned he said, “tear down means you have to remake them, too.” Sorry, Mr. Grohol.

— TRAINEE ERIC SETH, HARRISBURG

Come to “God’s Country”

POTTER — Fawn survival and turkey nesting success has been phenomenal here, so it should be an outstanding year for hunters.

— WCO WILLIAM C. RAGOSTA, COUDERSPORT

Outside Looking In

At a Cabela’s Archery Tournament in Warren County last summer I got to chat with professional and amateur archers from all over the country. Many of the shooters from the Midwest were amazed at how many deer are taken here, and of the variety of wildlife to be found in a state east of the Mississippi. More than anything else, though, they were surprised at the amount of public hunting land here and the low cost of our nonresident license. One gentleman couldn’t believe how many different species of wildlife he could hunt without buying extra tags or licenses. Sometimes it takes a different perspective to realize just how good we have it here.

— WES RICHARD T. CRAMER, TIONESTA

Baby Boom

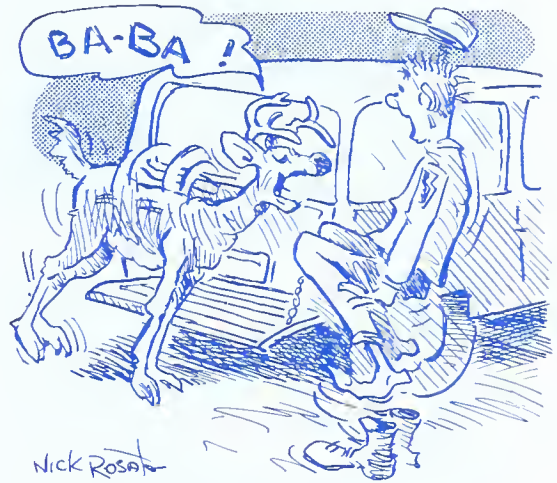
CLARION — Due to the dry weather last spring the turkey population here has exploded. I saw more turkey poults last June than I can ever remember. During the third week in June, Food and Cover Corps workers were mowing when they found two nests with 10-12 eggs in each, and the hens were still sitting on them. I checked back during the next week and they all had hatched.

— WCO DAVID E. BEINHAUR, KNOX

Turned the Tables

In June 1998 I wrote a Field Note about a Canada goose that moved into one of the osprey nest platforms at Shenango Reservoir. I guess “what goes around, comes around” is fair play because in June I noticed two ospreys on top of one of our goose nests on SGL 270.

— LMO JAMES E. DENIKER, SANDY LAKE



Ghost Buck

LUZERNE — On a dark, damp, foggy spring night, Deputy Phil White picked up a big roadkilled buck. When Phil unloaded the deer it landed on its feet, and escaping air from its bloated belly sounded like an eerie moan. For a minute Phil thought the deer had come back to life to haunt him. I think Phil’s been watching too many horror movies.

— WCO JOSEPH G. WENZEL, BEAR CREEK

Helping Hand

LYCOMING — Wildlife rehabilitator Sylvia Slater, known as the “bear lady,” has cared for many orphaned and injured bear cubs over the years. Recently, though, she retired and moved, and now we have to make other arrangements for cubs. Sylvia couldn’t totally abandon her work, though, as a sow with three sick, malnourished cubs brought them to Sylvia’s new residence, where they were cared for and subsequently released.

— WCO TERRY D. WILLS, WILLIAMSPORT



Burglar

Game Lands Maintenance Supervisor Dale Walker watched a gray squirrel bury a corn kernel and carefully tamp the soil back into the hole. After scampering away, another squirrel ran over, dug up the kernel and ate it.

— LMO JOHN C. SHUTKUSKI, DAMASCUS

Track Stars

SCHUYLKILL — I enjoy feeding birds, but as many folks have discovered, gray squirrels can be a nuisance at feeders. After installing a squirrel guard, I thought I had finally foiled the freeloaders until I watched as one climbed a nearby tree and jumped an amazing 11½ feet to the feeder, avoiding the guard.

— WCO STEVE HOWER, PINE GROVE

The Wrath of a Retired WCO

BRADFORD — My daily routine takes me past a local country club where retired WCO Ed Gallew can often be seen playing golf. I’ve been tempted to sound my siren just when he’s ready to tee off, but Ed knows where I live, and you know what they say about paybacks.

— WCO VERNON I. PERRY, MONROETON

Amazing

TRAINING SCHOOL — Several of us trainees saw a coyote with a pup hunting in a field adjacent to school grounds, a mere five miles from downtown Harrisburg.

— TRAINEE ROBERT A. EINODSHOFER, HARRISBURG

Noted the “Note”

BERKS — Robert Hartranft came up to me at a Hunter-Trapper Ed class and said, “It pays to read Field Notes in *Game News*.” He said he had read a Note that said, “if you didn’t pick up trash you are part of the problem.” While hunting on a game lands here he was picking up trash when he noticed a full case of his favorite beverage in the weeds.

— WCO CHUCK LINCOLN, LEESPORT

New Neighbors

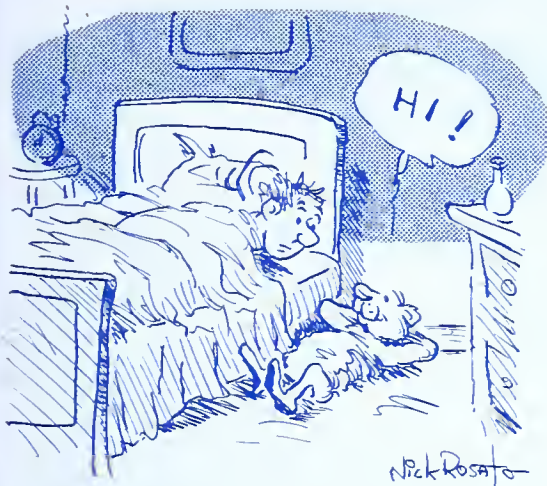
HUNTINGDON — For the first time ever, a pair of bald eagles successfully nested at Raystown Lake in the spring, and the nest was only a five minute walk from my house.

— WCO JOHN B. ROLLER, HUNTINGDON

Joining the Fun

BEDFORD — The Bedford County Federation of Sportsmans Clubs recently held their annual Youth Field Day. About 110 youngsters participated in a variety of outdoor events. What made the day, though, was when a rattlesnake crawled up out of a hole in the ground at the muzzleloader range, then later a couple of fawns joined the kids in a jaunt around the obstacle course.

— WCO JIM TROMBETTO, NEW ENTERPRISE



Roommate

ADAMS — James Johnstone from Fairfield awoke in his second floor bedroom one morning in June and was eyeball to eyeball with a young groundhog on the floor next to his bed. It seems the chuck entered from the basement when James was doing some yard work earlier in the day.

— WCO LARRY HAYNES, GETTYSBURG

Grateful

SCHUYLKILL — Mrs. Morgan from Fountain Springs called about a dead deer (apparently hit by a vehicle) she had found on her property. When I arrived the deer was nowhere to be found and Mrs. Morgan was confused and somewhat embarrassed. I noticed drag marks leading away, and after following them up the mountain for about 200 yards I found the carcass. It seems a bear had found the deer and devoured much of it. At least the bear had saved me from dragging the deer back out.

— WCO JOHN DENCHAK, GORDON

Aliens

LANCASTER — Last spring I got a call from a farmer in the New Holland area about a pair of brightly colored, highly aggressive geese that were nesting in his mowed hay field. After checking a field guide, I identified the birds as Egyptian geese, transatlantic visitors from Africa.

— WCO STEVEN MARTIN, DENVER

You Just Never Know

BUCKS — When I arrived here many people said there was little wildlife in my district. The 325-pound black bear I trapped recently was added to a very extensive list of wildlife I had to deal with over the last few months. I guess I'll just have to grin and "bear" it.

— WCO RICHARD E. MACKLEM, NEW BRITAIN

First Time for Everything

WCO Scott Thomas transferred from the southeast to Blair County here in the southcentral. Spending his first spring with his new bride in his first home, he received his first call on the first day of trout season, informing him that he had caught his first ever nuisance bear. The way the bear population has increased here it won't be his last.

— COMMISSIONER SAM DUNKLE, DUNCANSVILLE



Some Serious Explaining

FULTON — When my rottweiler pup encountered a ferocious coyote inside my home office, he bravely fought to defend my family from the snarling canine and chewed it up pretty good. Unfortunately for me, the coyote mount was due back in the region office the following morning.

— WCO STEPHEN A. LEIENDECKER, BIG COVE TANNERY

Ad-lib

CRAWFORD — Deputies Whitlatch and Smith had to take over the archery segment of an HTE class because I had another commitment at the last minute. The night before the class I dropped off my bow (which was in a hard plastic case) for them to use. The following evening I called Deputy Whitlatch to ask how the course went. "Great," Al said, "But where did you get that Remington .30-06 bow with a 3-9x scope?"

— WCO MARK A. ALLEGRO, MEADVILLE

Grade A Large

BEDFORD — HTE instructor Tom Stoner apparently got too close to a nesting bluejay while setting up for a sporting clays shoot at the Everett Sportsman's Club, as the bird flew at and scratched his shaved head. Perhaps the bird mistook Tom's shiny dome and big bushy beard for an egg in a nest and was merely trying to incubate his noggin.

— WCO DAN YAHNER, EVERETT

Spellbound

FRANKLIN — Deputy Wilbur Armstrong and I were patrolling in the Michaux State Forest during gobbler season when we noticed two immature bald eagles soaring over a pipeline, looking for prey. One folded its wings, and from about 200 feet up, dove straight down into the forest. It was after watching this awesome sight that we realized the camera was on the back seat of the vehicle.

— WCO KEVIN L. MOUNTZ, SAINT THOMAS

Realistic Looking

SOMERSET — Deputy "Bunk" Harding and his son, Mark, were setting up a turkey decoy one day last spring when a coyote came streaking out of the brush and grabbed the decoy. Realizing its mistake, the coyote promptly dropped the fake and made a hasty retreat, but not before leaving some "fatal" tooth marks on the "turkey."

— WCO DANIEL W. JENKINS, BERLIN

They're not Dumb

WYOMING — A landowner told Deputy Gene Gaydos that he and his guests had hunted hard during deer season last year on both his property and the surrounding mountain without seeing a single deer. He figured the deer population must have been really low, but the following spring he counted 50 deer in his fields nearly every night.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK



Spoke Too Soon

PIKE — National Park Service Ranger Larry Commisso told Deputy Rich Heimbrook and me that his party noisemakers keep nuisance bears away from his home. "I haven't seen a bear in three weeks," Larry bragged while we visited him one day. Within an hour after leaving, though, dispatcher Ritchie Walton radioed that Larry Commisso needed us back to remove a bear from inside his house.

— WCO ROBERT JOHNSON, MILFORD

Doubles

TRAINING SCHOOL — While checking our targets after our first volley while sighting in our revolvers, I noticed I was more proficient than I thought: Six shots fired, 12 holes on my target. Thanks for the help, Mark.

— TRAINEE HAROLD MALEHORN, HARRISBURG

Number of bald eagle nests doubles

PENNSYLVANIA'S nesting bald eagle population has more than doubled over the past two years, from 20 to 41 pairs, and spread into areas where the birds haven't nested in more than 100 years. While such a large and rapid increase is unparalleled anywhere else in the eastern United States, eagle numbers have grown throughout the country in recent years. It's estimated that in 1963 slightly more than 400 nesting pairs were in the Lower 48. Today, that number has risen to about 5,750.

In July the U. S. Fish & Wildlife Service proposed removing bald eagles from the federal endangered species list. It had been listed as an endangered species from 1967 until 1995, when it was down-listed to the "threatened species category."

Despite what happens on a national level, the bald eagle's status will not change soon in Pennsylvania. "We have plenty of unfilled habitat just waiting for eagles," explained Game Commission Executive Director Vern Ross. "Until it's occupied, eagles will remain a species of special concern in Pennsylvania. But recognizing the eagle's population growth, the Game Commission will consider moving the bald eagle to the state's threatened species list sometime in the next year or so."

The bald eagle's comeback is the result of improving environmental conditions since the banning of DDT, a pesticide that nearly wiped out the species (along with ospreys and per-

egrine falcons) in the 1950s and '60s, and eagle reintroduction efforts involving the USFWS, Canadian provinces and state fish and wildlife agencies.

Pennsylvania's 1999 eagle nest total represents a 13-nest increase over 1998's tally. At least 41 young eagles were expected to leave the nests this year, according to PGC biologist Dan Brauning. One eaglet per nest indicates a healthy population. Since 1990, more than 200 eaglets have fledged from Pennsylvania nests.

"The eagle comeback in Pennsylvania has been nothing short of amazing," Brauning said. "In our wildest dreams, I don't think we could have expected to see 41 nests in the state within a decade after the close of our eagle reintroduction program. This still unfolding wildlife management success story is truly a tribute to international and interstate cooperation."

The Game Commission began its bald eagle reintroduction program in 1983, when 12 eaglets were taken from nests in Saskatchewan and brought back to Pennsylvania, where they were raised and released from elevated nesting structures in Dauphin and Pike counties. The 7-year project, financed in part by the Richard King Mellon Foundation of Pittsburgh and federal endangered species funds, led to the release of 88 Canadian eagles in Penn's Woods.

Bald eagles didn't receive much attention from fish and wildlife agencies or the general public until DDT had

BRENDA PEEBLES has been monitoring bald eagles in the Northwest Region for 20 years. During that time she's seen the number of active eagle nests grow from one or two to the 22 found this year.



Regis Senko

decimated their population in the Lower 48. Sure, they had been America's symbol for more than 200 years, and they were protected by the Bald Eagle Protection Act of 1940. But they also are raptors, a class of wildlife that was persecuted until the important role predators play in animal communities became better understood.

"Eagles are building nests all over the commonwealth," Brauning said. "Who would have thought they'd nest in Chester County or along Raystown Lake, places where human activity is fast-paced and somewhat threatening to the tranquil sites eagles historically have sought for nesting. The new Chester County nest is in a tree within 50 yards of a busy road."

The doubling of Pennsylvania's nesting eagle population over the past two years is quite an accomplishment, according to Paul Nickerson, endangered species chief for the USFWS's region office in Hadley, Mass. "We normally see a five to 10 percent increase in nesting from year to year," Nickerson said. "But Pennsylvania's increase is phenomenal. It's unlike anything occurring in other states."

"Assuming these nests are new, rather than established ones that were just found, Pennsylvania is attracting eagles from other places. The young fledged previously from Pennsylvania nests couldn't possibly account for the increases the state is experiencing," Nickerson explained. "Some of the birds may be coming from the Chesapeake Bay, a wonderful reservoir of

eagles, maybe more than 500 pairs."

Nickerson reported eagle numbers are up everywhere and that eagles seem to be more willing than in the past to build nests in proximity to people and recreational areas. "The new birds seem to be more tolerant of people," Nickerson stated. "In Florida, they're nesting right in housing developments. It's the birds, not a loss of suitable habitat. They seem more willing than they were 20 years ago to put up with people to stay close to feeding areas. If they're repeatedly disturbed, though, they leave."

PGC biologist aide Brenda McCaffrey Peebles, who has been monitoring eagle nests in the Northwest Region for 20 years, said many new nests are discovered by outdoor recreationalists. This year one was found by a hot-air balloonist.

Others she finds after receiving repeated reports of eagles hanging out in particular areas. "Sometimes it may take several years to find a nest, because of visibility and accessibility," she added.

Peebles, who this year checked 22 of the state's 41 known nests, said young eagles left nine nests. Five more held young, and seven nests held none. One nest in Mercer is still under construction. Over the past 10 years, nest-

ing success has averaged 66 percent. Infertility and immaturity, disturbances and tree blow-downs affect nesting success.

Jim Binder, who manages the Middle Creek Wildlife Management Area, said a new eagle nest — the area's first — in a tree near the large impoundment, has developed quite a following.

The management area, just south-east of Lebanon, has been attracting eagles since it was developed in the 1970s, but none stayed around to nest. In January 1998, a pair built a nest but didn't use it until this year. "This pair has been driving off other eagles and ospreys," Binder said. "They've be-

come pretty attached to the place."

In addition to Middle Creek, several other sites provide good chances of seeing bald eagles. Eagle numbers are particularly high in western Crawford County, around the Pymatuning Reservoir.

At least six nests are along the lower Susquehanna River in Lancaster and York counties. Fisherman's Park, below the Muddy Run pump storage facility is an excellent site. Another hotspot, particularly in winter, is along the Delaware River in the Delaware Water Gap National Recreation Area and near the Poconos communities of Lackawaxen, Milanville and Equinunk.

Triple-split dove season slated to open Sept. 1

PENNSYLVANIA'S "new look" dove season will open Wednesday, Sept. 1, under a package of migratory game bird seasons selected and forwarded to the U.S. Fish & Wildlife Service by Game Commission Executive Director Vern Ross.

Dove season, which marks the traditional start of hunting activity in Pennsylvania, will be divided into three seasons for the first time. Additionally, daily dove season hunting hours will be from a half-hour before sunrise to sunset.

The splits for dove season will be Sept. 1 - Oct. 5; Oct. 30 - Nov. 27, and Dec. 27 - Jan. 1. The holiday dove hunt will be Pennsylvania's

first. Last year, Pennsylvania hunters had a continuous dove season, starting Sept. 1 and running through Nov. 9. In previous years, the state had dove seasons divided into two splits.

Pennsylvania's early migratory game bird season selection documentation also includes a statewide early Canada goose season, Sept. 1 - Sept. 25.

In the southeast portion of the state, the early goose season daily and

1999 Migratory Game Bird Seasons			
Species	Open	Closed	Daily/ Possession Limits
Mourning Doves	Sept. 1	Oct. 5	12/24
	Oct. 30	Nov. 27	12/24
	Dec. 27	Jan. 1	12/24
Woodcock	Oct. 23	Nov. 6	3/6
Virginia, Sora Rails	Sept. 1	Nov. 9	25/25
Moorhens	Sept. 1	Nov. 9	15/30
Common (Wilson's) Snipe	Oct. 23	Nov. 27	8/16

possession limits will be five and 10, respectively. In the remainder of the state, the limits will be three and six.

Keystone State youngsters once again will have the opportunity to experience a special day of waterfowl hunting, on Saturday, Sept. 25. In past years, this youth hunting opportunity was only for ducks, but this year will include Canada geese.

Pennsylvania's 2-week woodcock season will open Saturday, Oct. 23, and continue through Saturday, Nov. 6, with a daily limit of three birds and six in possession after opening day.

Virginia and sora rails and moorhen hunting starts Sept. 1. A season for common snipe will begin Oct. 23.

All migratory game bird hunters, including those afield for doves and woodcock, are required to obtain and carry a Migratory Game Bird License (\$3) in addition to a general hunting license. This applies to resident, non-resident, junior, senior and lifetime license holders.

Shooting hours for migratory game birds, including doves, and waterfowl are from one-half hour before sunrise until sunset.

Combination Lifetime Licenses available to seniors

PENNSYLVANIA residents age 65 and over are reminded of the availability of a new, lifetime combination license, which includes hunting, furtaking, archery and muzzleloader privileges. The cost is \$101. Current senior lifetime license holders can upgrade to a lifetime combination license for a one-time fee of \$51.

Individuals who purchase a lifetime combination license or upgrade this year will receive a new ID card next June. This year, as a first-time combi-

nation license holder, they will receive a back tag and license stamp marked "PA Resident Senior Lifetime Combination License."

Senior lifetime hunting, furtaking and combination licenses are available only from Game Commission offices. For additional information refer to the PGC homepage (www.pgc.state.pa.us) under Hunting License Information, 1999/2000 Hunting License Update; or call the PGC License Division at 717-787-2084.

Headquarters receives new phone system

PLANS CALL for a new phone system to be installed in the Game Commission's Harrisburg headquarters by September 1, to better serve callers. "We are moving to a new telephone system to improve customer service at the Game Commission," said Executive Director Vern Ross. "This new system will enable us to better respond to the hundreds of calls

we receive at the headquarters each day, and it will allow callers to leave messages before and after normal working hours, so that we can have the appropriate staff member return their calls.

"The new system also will nearly double the number of available telephone lines, and will result in callers having an easier time of reaching the

Game Commission during the day.” He noted that new office technologies requiring dedicated phone lines — such as faxes and personal computers — had exhausted the Game Commission’s existing telephone line capacity.

To avoid confusion, Ross said that all currently listed phone numbers for the headquarters will remain the same. Also, since the project will be an upgrade of the old system, callers are not expected to encounter any difficulties in reaching the commission while work is being completed.

Ross credited Tom Wylie, director of the commission’s Bureau of Administrative Services, for leading the effort to upgrade the telephone system.

The Game Commission purchased the new digital telephone system through the Department of General

Services’ contract with Executone. It replaces the system installed when the Commission’s state headquarters opened in 1987. Costs for the new system will not exceed \$117,000.

With the new telephone system, the Game Commission also will be able to post recorded messages offering callers information on frequently asked questions, such as extended hunting seasons, license fees or hunter education schedules.

“It is the Game Commission’s responsibility to respond to Pennsylvania’s sportsmen and sportswomen questions in a timely and efficient manner,” Ross said. “Our new telephone system will go a long way toward accomplishing that goal, by ensuring that we are able to answer callers’ questions and respond to messages in a prompt manner.”

1999 YHEC champions crowned

BROTHERS Garth and Devon Babcock of Rome kept Top Gun honors in the family at Pennsylvania’s 1999 Youth Hunter Education Challenge held June 19 at the Game Commission’s Scotia Range near State College.

Garth earned the Top Gun award in the Senior Division (ages 15-18) with a combined score of 820, while younger brother, Devon, emerged as Top Gun in the Junior Division (ages 11-15) with an overall score of 745. Nearly 120 youngsters participated in the NRA-sanctioned event.

In Senior Division team competition, the Sayre Sportsmen Silver squad swept the championship with a score of 3,440. Members of the squad included Pete Rosenberger, Athens; Mike Peutl, Ulster; Ron Newman, Milan; Dave Chilson, Ulster; and

Garth Babcock.

The Sayre Blue squad repeated as Junior Division champions, with a score of 3,240, and included Ted Them, Sayre; Ed Rosenberger, Athens; Adam Green, Warren Center; Cody Chapman, Milan; and Devon Babcock.

Pennsylvania sent 20 youngsters and coaches to the 1999 International YHEC event held in the Mansfield area July 26-30.

SENIOR DIVISION

Teams: 1. Sayre Sportsmen Silver, 3,440, Coach Blair Babcock, members Pete Rosenberger, Athens; Mike Peutl, Ulster; Ron Newman, Milan; Dave Chilson, Ulster; Garth Babcock, Rome. 2. Rock Run Raiders, 3,235, Coach Robert L. Myers, members William Rogers, Hughesville; Tim Reichart, Orangeville; Todd

Puderbach, Unityville; Matt Hoover, Montoursville; Mike Eakin, Picture Rocks. 3. Troy Red, 3,170, Coach Terry West, members Jeremy Castle, Columbia Cross Roads; Zack West, Granville Summit; Randy Calkins, Troy; Brett Carman, Troy; Craig Stanton, Burlington.

Rifle: 1. Garth Babcock, 240; 2. William Rogers, 220; 3. Jeremy Castle, 210. Shotgun: 1. Jeremy Castle, 170; 2. Garth Babcock, 170; 3. Josh Day, 170. Archery: 1. Dave Chilson, 160; 2. Garth Babcock, 155; 3. Chris Setzler, 155.

Muzzleloader: 1. Dave Chilson, 80; 2. Sean Seck, 80; 3. Chris Setzler, 80. Hunter responsibility exam: 1. Craig Stanton, 235; 2. Nick Estep, 225; 3. Mike Eakin, 225.

Top Gun: 1. Garth Babcock, 820; 2. Dave Chilson, 790; 3. Jeremy Castle, 780.

JUNIOR DIVISION

Teams: 1, Sayre Sportsmen Blue, 3,240, Coach David Hafer, members Ted Them, Sayre; Ed Rosenberger,

Athens; Adam Green, Warren Center; Cody Chapman, Milan; Devon Babcock. 2. Southern Clinton Green, 2,560, Coach Doug Desmond, members Garret Desmond, Mill Hall; Matt Rickert, Beech Creek; Andy Noll, Mill Hall; Lance Wilt, Lamar; Andy Miller, Mill Hall. 3. Troy Blue, 2,495 Coach Allen Castle, members Tim Roberts, Gillett; Jeff Campbell, Towanda; Erin Castle, Columbia Cross Roads; Craig Sheeley, Troy; Chase Furman, Milan.

Rifle: 1. Devon Babcock, 240. 2. Garret Desmond, 220; 3. Ted Them, 210. Shotgun: 1. Ed Rosenberger, 150; 2. Lance Wilt, 150; 3. Andy Noll, 130. Archery: 1. Ed Rosenberger, 115; Devon Babcock, 110; 3. Adam Green, 110.

Muzzleloader: 1. Lance Wilt, 80; 2. Craig Sheeley, 60; 3. Lynsey Arnold, 60. Hunter responsibility exam: 1. Devon Babcock, 235; 2. Ted Them, 234; 3. Cody Chapman, 230.

Top Gun: 1. Devon Babcock, 745; 2. Adam Green, 680; 3. Ed Rosenberger, 660.

PGC game lands host forest bioblitz

WHO AND WHAT lives there? That was the question addressed by 225 people who converged on SGL 211 in Lebanon County in June to conduct Pennsylvania's first forest bioblitz.

In a 24-hour span, from noon, June 4, to noon, June 5, a census was conducted on a 10-square-mile tract of the game lands to chronicle birds, mammals, fish, reptiles and amphibians, aquatic invertebrates, terrestrial invertebrates, vascular plants, protists and fungi and bryophytes and lichens.

When all the tallies were in, a conservative count of 1,250 species had been logged, including 537 insects; 426 vascular plants; 51 kinds of mosses; 27 mammal species, including a eastern woodrat, a threatened species in Pennsylvania; eight fish species, including brook trout and pickerel; 22 species of reptiles and amphibians, including copperheads and rattlesnakes; and 90 species of birds, including five kinds of hawks, four owls and 18 species of warblers.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is (717) 787-4250.

Additional species will be identified once all the information has been analyzed.

Jerry Hassinger, supervisor of the Game Commission's Wildlife Diversity Section, was responsible for bring-

ing the more than 200 naturalists, biologists and scientists together to make this event, which was sponsored by the Game Commission and the Pennsylvania Biological Survey, so successful.

Youth essay contest

"Being a responsible hunter: What it means to me."

THE THEME for this year's youth essay contest is "Being a responsible hunter: What it means to me." A tremendous array of prizes are available this year, too, including scholarships to Safari Club International's YO Ranch, in Texas, and American leadership school in Wyoming.

There are two divisions, Junior, for those 12 through 15 years of age, and Senior for those 16 through 18. Essays

must be printed or typed, double-spaced, and contain no more than 300 words. Entries must be postmarked no later than November 30, 1999, and be sent to the Pennsylvania Game Commission, Hunter Education Youth Essay Contest, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

For complete contest details, see pages 2 and 3 of the *1999-2000 Hunting and Trapping Digest*.

Middle Creek programs

WILDFOWL show and NHFD activities are planned for the Middle Creek Wildlife Management Area.

On September 18 & 19 the "13th Annual Middle Creek Wildfowl Show" will be held from 9 a.m. to 5 p.m. on both days and feature hand carved waterfowl decoys, wildlife art and much more. Proceeds benefit the Wildlands Trust Fund for preservation of open space.

National Hunting and Fishing Day will be celebrated on September 25, from 9 a.m. to 5 p.m. Many sportsmen's organizations will be represented along with other conservation groups. There will be ongoing exhibits and activities throughout the day. Come celebrate the contributions of sportsmen towards conservation.

The Middle Creek visitors center is south of Kleinfeltersville.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southcentral — 814-643-1831

Southwest — 724-238-9523

Northeast — 570-675-1143

Northcentral — 570-398-4744

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of endangered species or multiple big game animals. All other calls should be made to the appropriate region number above.

Planning different types of hunts and new methods of taking game is just as much fun, if not more, than the actual hunting. It's not selfish to say . . .

"I Want it All"

RECENTLY a short-on-sleep mom, wife, homemaker and full-time career woman said, "I used to say I wanted it all; now I don't want any of it. They can have it all back."

This sentiment can at times be cured by sending hubby and the kids out of the house for the evening, or by taking a long hot bath and getting to bed early. Or having a family meeting and deciding how the children and the man of the house can shoulder part of the load of keeping a home going, and then following through. We all experience the "stop the world I want to get off for a little while" feeling from time to time.

The rallying cry a few years ago, for additional opportunities beyond homemaking and increased acceptance of women in the business world, was "I want it all." That meant a satisfying career, as well as home, marriage and family. Too many took on all these roles, in their full responsibility and time requirements, and found there just aren't enough hours in a day and a night.

I'm glad to see that we've pulled back from the "superwoman" ideal and are looking more toward apportioning our roles to let us enjoy all of them — perhaps shorter work weeks or days, increased chore sharing by other family members, maybe employing some outside help in the way of housekeepers and yard care services, to free up some free time. Today, more women are

taking time out to raise a family and stepping back into their career field after a hiatus, rather than "quitting work," period. I think that's a healthier and happier attitude.

Seems like we've stepped beyond the catch phrase of "I want it all," to a maturation of the options for women. But I don't believe the phrase is dead. As a hunter, I'm still behind that slogan 100 percent. As a hunter, I still want it all.

By that I mean I don't want to miss out on one single aspect of the hunting experience, or at least I want to experience all the parts of what it is to be a hunter that I want to experience. I have no desire to face down a grizzly at close range, gun or no gun, though I'd like to see the Far North Country where they live. Africa can keep its Cape buffaloes, too. I've seen enough film footage to know that's not the diverting vacation hunt for me. There's enough variety of game here at home to satisfy my desire to have it all as a hunter, because of the diverse experiences the many huntable species can offer. I want to sample it all before I'm done. I don't know if I will, but I can certainly try.

Every year, the *Digest of Pennsylvania Hunting & Trapping Regulations* is a sort of wish book for me. The Game Commission sets out the smorgasbord of seasons, and I'm welcome to pick a little from this or that dish, or make a whole meal out of

what's in just one of the bowls. It's my choice, but at least I'm offered it all and I want it all. And once I've gotten it, they can't have it back; the taste will stay with me forever.

When September comes and the first chill breaths of autumn settle in, it feels like another hunting season has begun — though the license year starts on July 1. I begin looking at what parts of Pennsylvania hunting I've already taken for my own and what parts I'm still hungering for.

In my quest to have it all, I wanted to go early season goose hunting and I have, briefly. I sat in a misty Crawford County cornfield, on an up-turned bucket, watching a clover field and waiting for the resident Canadas to wing over the hill. Unearthly, disembodied honking passed above my head; the fog was too thick to see the birds. I remember my heart pounding when hunters across the road fired and we thought the geese were turning toward us. And the laughter when, after more gooseless hours in the thick, humid air, I told my friend, "I can't believe I got up so early to sit on a bucket in a cornfield and swat mosquitoes."

"You?" he said, "I drove clear across the state for this."

I want all of archery deer season, too. I want the beginning of the hunt, the weather warm and the woods still leafy, when I wonder at the bucks having velvet-free antlers; only days earlier their racks were still growing. I want the day in mid-

October when the leaves turn the perfect color and the morning after a killing frost when they sift steadily to the ground. I want, too, the end-of-bow-season snowfall, when a freshly opened scrape is indeed fresh and a new buck rub leaves shreds of bark on top of the whiteness, and even a hunter can see sign that the does are in heat.

Squirrels, grouse, pheasants and rabbits are part of my plan to have it all. I've tasted some of what they offer a hunter, but I want another helping. To experience it all with small game, I want to try for them in different ways, hunting by different methods and with different implements. I've shot squirrels with several gauges of shotguns (not that much fun to me), with the smallbore rifle (my favorite) and with the bow (luck). I still want to go after bushytails with a flintlock, and I promise myself (again) that this is the year I'll squirrel hunt with my new old-fashioned blackpowder rifle.

To have it all as a hunter, I wanted to dip into some of the rarer treats, like bobwhite quail (which I hunted in southern New Jersey), snowshoe hare (which I hunted in the Poconos and at least saw tracks) and crows. I haven't gone after crows, although I knew an older hunter for whom the black birds were his favorite sport. He showed me how he made crow decoys out of black tissue paper and coat hangers. By the time I met him he was too ill for the pursuit, but he whet my appetite with his descriptions of waiting, hunkered down, cawing, calling the crafty birds to the gun.

Turkey hunting has so many faces that a hunter could spend an entire hunting career trying to see them all. I've shot a few spring gobblers, but had calling help



HUNTING squirrels by different methods and with different sporting arms adds spice to a sportsman's season. Taking them with a muzzleloader or bow is a special challenge.

from my husband. Before I can say I've done it all with turkeys, I want to call one in and shoot it by myself. I've shot fall turkeys with shotguns and rifles. Calling them to the shotgun in the fall is like spring hunting, but hunting turkeys with a rifle is more like deer hunting, only with a smaller, sharper-eyed quarry. I have never tried for turkeys, spring or fall, with the bow or flintlock, so I've got those attempts to look forward to before I finish my quest to have it all.

Then there are the firearm deer seasons. I've hunted whitetails with several rifles, including .30-30, .30-06 and .280, so I've satisfied my desire for caliber variation. I've yet to hunt deer with a flintlock (beginning to see a pattern here?).

When I think of deer hunting and wanting it all, I think mostly of the hunting method and hunt location. In the pursuit of whitetails, I want to do it all, experience every step of the process, from learning about deer and scouting, to picking stand location, to seeing and shooting the deer, to getting it out of the woods, to butchering and cooking the meat. Without that I'd feel cheated.

I've had folks "guide" me to deer, tell me which stand to sit in and wait for the drive to come through. That was never as satisfying as picking my own spot, when I'd read the landscape and deer sign and decided for myself this was a good place to wait for a whitetail. I've hunted and shot deer by posting, by still-hunting and even by stalking.

But I've yet to add to my accomplishments what a young friend has. He paddled across a river in the northern tier big woods, went up a mountain and shot a doe with his flintlock, then paddled back across the

stream with the deer and the long gun in the front of the canoe. He told me he wanted to keep paddling back and forth, the view of the deer with his flintlock laid across it in the bow was such a hunting ideal.

I've wanted to boat across a big lake, like Kinzua or Raystown, to try different types of hunting, from squirrels to deer, in little-accessed locations. And I want to float down a river, like the Allegheny, and get out here and there with my gun. Or strap my bow to my bicycle and pedal into new hunting territory. My friends and I have talked about how we'd get a deer out on a bicycle, though, and haven't come up with an answer yet (a pull behind cart, probably). Then there's the backpack hunt-

ing trip; I haven't done that yet. But I have hunted urban deer, a part of having it all I didn't know I wanted, but thoroughly enjoyed.

One night hunt for raccoons, when the dogs bayed and treed several, allows me to say I've done that. I've not hunted foxes or coyotes but have had invitations. I've hunted for bear but not often. With so many bears in so many places in Pennsylvania, I've got to try that again. As for getting a bear with a bow, I may say that's part of wanting it all, but I know it's just idle talk. Some parts of having it all will, I'm sure, always stay out of reach.

Wanting it all doesn't mean a hunter must do it all. Just like today's American woman, we'll find that insisting we accomplish it all gives us too much to do and leaves out much of the enjoyment. But take a look at this year's hunting season offerings, and if you do want it all, go after as much as you can or truly want to. □

The Game Commission sets out the smorgasbord of seasons, and I'm welcome to pick a little of that dish, or make a whole meal out of what's in just one of the bowls.

Behind the Badge

By Rich Cramer

Wildlife Education Supervisor
Northwest Region

Darkness was closing in like spilled black ink on a sheet of paper. I didn't have much time to get back to the hunter.

The Walk



THE 1997 BUCK SEASON was winding down. It had been relatively busy, but this last day had been rather uneventful. Deputy Steve Hale and I had worked throughout the day and had seen few hunters. A nonresident with a resident hunting license was the only violation I took care of.

Steve was ready to call it quits about 3 p.m., so I dropped him off at his home and headed up German Hill near Tionesta. I was thinking about hanging it up for the day, too, as there seemed to be no one out. Maybe the fact that the Steelers were about to kickoff against the Patriots had something to do with the lack of hunters in the field.

I wanted to check one more spot, though, so I turned up Church Hill Road and onto a dead end forestry road frequented by hunters. There were no vehicles at the end of the road, but the tracks in the snow indicated a lot of ATV traffic. ATVs are a constant and troublesome problem on both private and public land here in Forest County. For some reason, people come into this area and think they can ride their machines anywhere they please.

I decided to patrol on foot along the ATV trail, so I parked my Bronco, reported in to the dispatcher and started off. As I climbed a small hill I began to see quite a few deer, which boded well for Monday's antlerless season opener. When I reached the top of the hill I spotted a hunter seated on a rock. He wasn't wearing a fluorescent orange hat but did have on an orange coat.

I approached him with the intention of checking his license and issuing him a warning for not having an orange hat on his head. He was sitting next to the ATV trail and had an inordinate amount of gear with him. I couldn't imagine someone actually carrying that much equipment into the woods to hunt, and after I checked his license I asked him where his ATV was parked. He looked down at the ground and quietly said that it was parked about 50 yards away. I informed him that it was a violation to operate an ATV on the Allegheny National Forest, except on designated trails when open. He said that he knew it was illegal and only did it because he saw others doing it earlier in the day.

With only about an hour of shooting time left in the season, I told him he could continue to hunt, but that I would hold

his hunting license and keys to his ATV. If he killed a buck he was not to move it and could tag it when I returned. I wanted to search for more ATV operators.

I continued up the trail to a ridge where the trail split. All of the fresh tracks, however, went in only one direction, so I followed them and soon noticed a trail where a deer had been dragged out. I backtracked a short distance and found a small gut pile 20 yards off of the ATV trail. It looked like someone had shot a deer from an ATV. I then followed the drag trail to an area where many camps were located. At the end of the trail, vehicle tracks indicated where the deer had been loaded onto a car or truck. Now, how was I going to find this vehicle and the deer that was in it?

If someone was driving all the way back where the deer was, I surmised that they must be from one of the camps. I had only about 40 minutes of daylight left, and I was nearly a mile from my vehicle and had no flashlight. I knew I had to work fast if I was going to check all of the camps. Luckily, most of the camps were vacant. I stopped at the first camp with lights on and the occupants were watching the Steelers game. They hadn't been hunting for hours and hadn't had any luck. It was the same story at every occupied camp I stopped at.

It was growing dark and I had one more camp lane to investigate. As I got to the end of the lane I discovered two camps that had ATVs and several trucks. This looked like it could be the place. I knocked on the door of the first camp and an older gentleman answered. He told me that he hadn't been hunting that day, but that his brother and nephew in

the other camp had, and the nephew was still out.

I then went to the other camp and knocked on the door. Another older gentleman came to the door, and he said he had been out earlier and that his son was still out. I asked his son's name and he gave me the name of the hunter whose license was in my coat pocket. I decided to take a shot in the dark. I asked if he would mind talking to me outside. After he came out I said I wanted to see the deer his son had shot. His look of shock quickly turned to one of resignation as he mumbled that the deer was in the woodshed, and that he would show me.

As he turned to go back into the camp to get the key for the woodshed he found that in his nervousness he had locked himself out of the cabin. I asked if his brother had a key for his camp and he said that he did. We walked to the brother's camp and as the gentleman retrieved his key I quickly used the phone to call the region office. I informed the dispatcher that I was more than a mile from my truck, without a flashlight, and I had a deer that may need to be



transported. The dispatcher quickly got directions to my location and called Deputy Chuck Worley to assist me.

I went back outside and over to the man's woodshed. Before he opened it he said, "You know, my son shot this deer by mistake." I told him that it probably was not going to be handled as a mistake kill now, and he understood. When he opened the door there on the floor was a field-dressed antlerless deer. I informed the man that I was going to confiscate the deer. He then said that his son should be back soon, and that I could wait to talk with him. I told him that I didn't think his son would be back for awhile. The gentleman looked confused, so I informed him that I had his son's hunting license and ATV keys in my coat pocket. The father looked at me with wide eyes and said, "You walked that whole way?" It really wasn't that far, but I guess to someone who hunts from an ATV, walking any distance is too far.

A few moments later Deputy Worley arrived and we loaded the deer onto his vehicle. I told Chuck to drive around to my vehicle and wait for me there. I borrowed Chuck's flashlight and set off into the woods to retrieve the hunter I had left nearly two hours earlier.

I was walking rather quickly and crunching in the snow as I went. The hunter heard me approaching and yelled, "Hey, I'm over here. I don't like to be in the woods after dark." The young man had all of his gear loaded onto his ATV, including his loaded rifle. I couldn't believe his audacity and complete disregard for safety. I unloaded his rifle, gave him his key back and told him to meet me at the bottom of the trail at my vehicle to discuss the situation.

I quickly ran down the trail to make sure Chuck had parked so the deer couldn't be seen. Chuck was parked perfectly, and mo-

mentarily the hunter arrived on his ATV. I had him walk to the front of my vehicle into the lights, and we began to discuss what to do about his several violations. I told him that he failed to wear a fluorescent orange hat, had driven an ATV on the national forest and had placed a loaded firearm onto a stationary motorized vehicle. The hunter looked chagrined and said that he knew he shouldn't have done any of those things. I then asked him if there was anything else he might want to tell me. He looked at me, shook his head and replied that he couldn't think of anything else.

I then asked him to step behind Deputy Worley's vehicle. When he did so I shined the beam of my flashlight onto the deer. The hunter's jaw nearly hit the ground as he stammered, "I sh . . . shot that deer by mistake. I was going to tag it on Monday. I didn't want it to go to waste." I informed him that I had given him every opportunity to tell me about his mistake, but instead he tried to hide it.

I told him to return to his camp where we would meet him and take care of the paperwork. Chuck and I met the hunter at his camp and, being from Ohio, he chose to settle the case on a field acknowledgement of guilt (an option at the time). I charged him with an illegally taken deer and also with a loaded firearm on a motorized vehicle. I gave him warnings for the fluorescent orange and ATV violations. As Chuck and I left the camp I could see the hunter shaking his head in disbelief at what had happened.

This case was a perfect example of persistence, a little luck and what many of our officers always say: "You can't catch them if you're not out there trying."

Oh yea, I made it home in time to watch a great comeback victory by the Steelers. □

It's not the World's Fair, but it has much to offer for those who have a fascination for creepy crawly creatures.

Great Insect Fair

“DO YOU have something to wash it down with?”

A boy who looked to be about 13 didn't seem to trust the smiling young women who were offering him “delicious, chocolate-covered crickets.” He was even more suspicious of the pizza topped with stir-fried mealworms. Other people, though, including me, were eager to taste the delicacies offered at the Insect Deli. Not only did we find them delicious, but if we hadn't been told, we never would have guessed that we were eating insects.

The Insect Deli was only one of many insect related activities offered at Penn State's Sixth Annual Great Insect Fair. Sponsored by the Department of Entomology, it was the brainchild of entomology students aided and abetted by Professor “Butterfly” Bob Snetsinger, according to Jim Frazier who heads the department. “Insects have such appeal to children,” Frazier says, “we thought the fair would be a good way to get them interested in science.”

Children and their parents, an estimated 5,000 in all, crowded the area in and around the Agricultural Sciences and Industries Building on a beautiful Saturday in late September. After six hours I still had not covered the entire fair because there was so much to see and do, even for an adult. And I missed the *Guinness Book*

of *World Records*' champion cricket-spitter, Dan Capps, who broke his own record of 32 feet for spitting a live cricket out of his mouth. At the Great Insect Fair he launched a cricket headfirst in a tight spiral, propelling it an astounding 38 feet, 1.5 inches, to the cheers of an enthusiastic audience.

Spitting a live cricket out of your mouth may not sound like an activity many people would want to engage in, but kids lined up for the privilege. While I watched, a pre-adolescent girl named Teresa broke the young female record by spitting a cricket 18 feet, 2 inches. To my surprise, the females seemed to be more eager than males to engage in cricket spitting.

The Great Insect Fair was not all about entomophagy (eating insects) and cricket spitting. Another highlight was the chance to view one tenth of Dan Capps's Magnificent Insect Collection that was spread out on tables in a classroom. Dozens of glass-covered cases displayed insects Tom had obtained from around the world. Beetles of all shapes, sizes and colors, immense walkingsticks, praying mantids so large that one coed said to another, “I wouldn't want to meet any of them,” two cases full of iridescent blue morpho butterflies from the tropics, owl butterflies with huge eyespots on their lower wings, a wide selection of

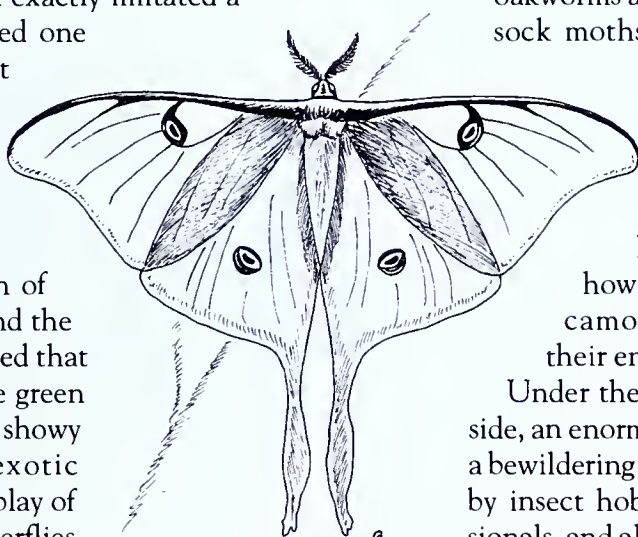
arachnids (including hairy spiders from Mexico larger than my hand), and hummingbird moths as large as hummingbirds, were just a few of the attractions.

Although I studied the cases, I was even more interested in watching the reactions of other people. Folks of all ages mobbed the room, and the adults were every bit as interested as the children. A beige insect from Taiwan that exactly imitated a dead leaf intrigued one mother. "Isn't that wonderful. It looks just like leaves," she told her daughter.

In a collection of moths from around the world, I was pleased that our stunning lime green luna moth was as showy as any from exotic places. And a display of our common butterflies and moths, along with their caterpillars, drew as many interested spectators as the brown, 7-inch-long cerambycidae beetle from Brazil or the immense walkingstick from Malaysia.

Those insects were safely dead, pinned and under glass, making it easy to admire "the beauty of nature in insects," that Capps, an amateur entomologist, tries to promote to the public. But at the Insect Zoo spectators were also invited to interact with live Pennsylvania-grown insects.

"They are vegetarians and really gentle.



~Luna Moth~

Would you like to hold one?" Dr. Heidi Appel asked as she showed off elegant walkingsticks and explained that the males are smaller than the females. Although most grown women refused to hold them, men (mostly dads) and their kids were eager. The trunks and branches of small oak trees in pots were covered with walking-

sticks, as well as orange-striped oakworms and a variety of tussock moths, many of which

blended in perfectly with their background, providing excellent

illustrations of how insects depend on camouflage to escape their enemies.

Under the Big Bug Top outside, an enormous tent sheltered a bewildering number of displays by insect hobbyists and professionals, and also featured live insects. Stan Green and the Creepy Crawlies specialized in cages

filled with scorpions, velvet ants, centipedes, millipedes and assassin bugs. Insect Water World permitted spectators to study stoneflies, mayflies and caddisflies under microscopes. The Web Site showcased spiders, while Ian and the Hercules Beetles supplied live Hercules beetles for folks to handle.

I stood for long periods studying an aquarium filled with pond scavengers doing their thing, watching cockroach races, and talking with a man whose display featured harmful caterpillars, including "nice" examples of the messy nests of fall webworms. By the time the kids reached his display, they were apparently so enamored by insects that they took along most of the fuzzy white caterpillars, so his fall webworms were much reduced by early afternoon.

A variety of games taught children insect mechanics. Maggot races consisted of

The Frost Entomological Museum is open to the public Monday through Friday from 9:30 a.m.-12 p.m. and 1:30 p.m.-4:30 p.m. Presentations or guided tours for 25 or fewer persons may be arranged by contacting the Assistant Curator, John Grehan, at 814-863-2865.

kids climbing into brown burlap sacks and wriggling along as maggots would. Mouth-part Madness emphasized the ways mosquitoes, butterflies and grasshoppers ingest their food. Pretending to eat like a mosquito, for instance, meant sucking up liquid through a straw without using your hands.

Insect-oriented face painting, songs, stories, puppet shows and arts and crafts kept the youngest spectators enthralled. Older folks attended fly tying sessions, studied posters devoted to integrated pest management, asked the Bug Doctor about insect pests in their gardens, and lined up to visit a classroom devoted to the life history and uses of honeybees, including their importance as pollinators. At a nearby park, butterfly gardening and monarch butterfly releases kept butterfly enthusiasts busy.

I ended my day as I began it, looking at insect collections. This time, however, most of the insects were from our region and are housed in the Frost Entomological Museum. Established in 1937 by entomology professor Stuart W. Frost, the research collection now holds more than 500,000 specimens of between 10 and 20 thousand species that represent regional insect biodiversity in the eastern United States. Some of the museum's current research projects include the study of parasitic lice, aquatic beetles, ghost moths and insects involved with animal decomposition.

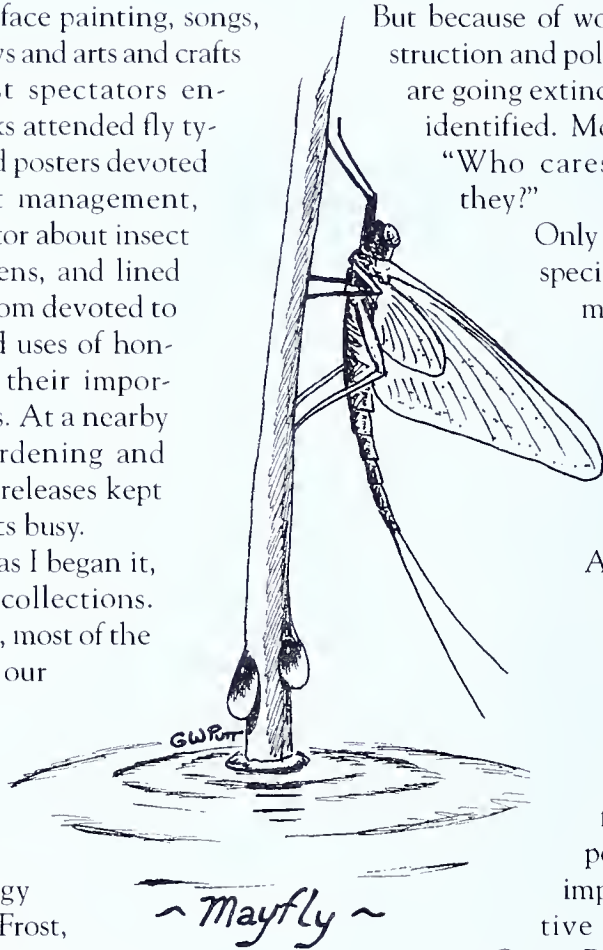
The many permanent displays, such as a live honeybee colony and an insect zoo are designed to arouse interest in insects in general. But the major mission of the museum is to promote the importance of insect biodiversity. For example, one in-

sect case held only unidentified weevils and was labeled: "Many insects in the collection are not identified. It may be many years before a specialist may have the opportunity to name them." While more than one million insects have been identified, scientists estimate there may be as many as 29 million remaining to be discovered.

But because of worldwide habitat destruction and pollution, many insects are going extinct before they can be identified. Most folks would say, "Who cares? What good are they?"

Only one percent of insect species compete with humans for food and shelter. Many other insects were, and in some cases still are, important sources of protein for people. As early as 700 B.C. a bas-relief showed servants of King Sennacherib of Assyria carrying locusts skewered on sticks in preparation for a feast. Grasshoppers and crickets were important foods for Native Americans in the Great Basin and Colorado Plateau. Usually they were roasted and ground before being mixed with pine nuts, grass seeds or berries and made into cakes.

When colonists first settled the area, this desert fruitcake repelled them. But soon their prejudice wore off, according to Edward Bryant who wrote in 1849, "... none of the delicacy [grasshopper fruitcake] was thrown away or lost." Scientists have recently discovered that the grasshopper species they ate consists of 60 percent protein, 11 percent carbohydrates and two percent fat. Mormon crickets, an-



For information about this year's Great Insect Fair, scheduled for Saturday, September 18 — an away football weekend, call the Penn State Entomology Department at 814-865-1895 or check their web site at www.ento.psu.edu/.

other delicacy, contain 16 percent fat and all the amino acids needed in a human's diet.

Locusts are toasted and eaten with tortillas and sauce in Mexico. Other favorite insect foods in parts of rural Mexico are butterfly larvae that infest the leaves of certain agaves, the eggs of water boatmen (which are toasted, ground up, and made into little cakes), mountain cinch bugs, oak-boring beetles, red ant eggs and wasps.

All of us inadvertently eat insects every day of our lives. The FDA has a list of the permissible number of insect adults, eggs, immatures, droppings or fragments with which a food can be sold. A half-cup of raisins can contain no more than 10 insects and 35 fruit fly eggs and a peanut butter and jelly sandwich 56 insect parts. These insect byproducts no doubt add to our nutritional intake. And, in an overpopulated world, eating insects may become more popular as customary protein sources dwindle. Of course, insects also provide food for many animals we admire and sometimes eat, such as fish and birds.

Insects are also invaluable in recycling and cleaning up our wastes and those of other animals. Dung beetles make it their business to bury dung before depositing their own eggs in it. Without the diligence of such coprophagy (dung-eating) insects, our earth would soon be overwhelmed by waste products. Other insects, such as maggots, specialize in recycling carrion, another invaluable service to us and the earth.

According to one of several bulletins the Frost Entomological Museum offers to visitors, "If the stability of insect activities is destroyed, it is possible for entire ecosystems to break down as plants (including crops) fail to be fertilized [pollinated] and reproduce, soils are depleted, and dramatic population explosions result in new or increased pest problems."

By the end of the day, many thousands of people seemed to have gotten over the yuck factor and had learned to appreciate insects, two of the goals the professional and amateur entomologists, as well as the more than 100 volunteers from throughout the university and larger community, had hoped to achieve. This annual event now draws in participants from all over the state and even from other states. For anyone with children, it's especially rewarding. I know that I can't wait until my granddaughter is old enough to attend. Maybe she'll even be a champion cricket-spitter. □

Books in Brief

(Not available from the Game Commission.)

Appalachian Summer, by Marcia Bonta, published by University of Pittsburgh Press, 3347 Forbes Avenue, Pittsburgh, PA 15261, 224 pp., \$15.95 paperback, \$34.95 hardcover plus \$3.50 shipping & handling. The third book in acclaimed naturalist Marcia Bonta's series on the seasons of a Pennsylvania mountain. Bonta offers a day-by-day account of the natural life of one place — her 648-acre property on the westernmost ridge of the ridge-and-valley province of southcentral Pennsylvania. In her minute observations of one place, one season, Bonta lays bare the connections we retain to the natural world.

Hunting during the rut certainly has its advantages, but those first few days of the season can be just as productive for those hunters who have established a . . .

Formula for Early Season Success

FOR ANY BOWHUNTER worthy of the name, the opening day of archery season promises the same degree of excitement and anticipation as Christmas morning for your average 5-year-old. I know that's how I felt as I waited for the sun to rise on the 1991 season. Belted securely into my treestand some 25 feet above terra firma, I looked forward to that opening morning with a healthy dose of confidence. I had done my scouting, placed my stand adjacent to a well-worn trail and arrived on stand more than an hour before first light. My confidence was well warranted; after all, in preparing for this critical morning, I had done everything right.

That explains why I was so flabbergasted at how quickly things went so horribly wrong. Barely five minutes after legal hunting time a huge doe came barreling through the woods like a runaway freight train, passed directly under my stand then disappeared over the next ridge. A few minutes later, two camouflaged figures came kicking slowly along through the thin carpet of last fall's leafy remnants, checking here and there for sign as they followed the same path the panicked doe had taken. "You sure

you hit it?" shouted one to the other. "Purty sure," came the still louder reply. When they drew close enough I whistled a few times before they spotted me perched over their heads. "The deer went down there," I gestured in a stage whisper, "but it didn't act like it was hit."

Startled by my unexpected presence above them, the two recovered in time to yell a "Thank you. We'll go take a look."

As the pair waded away, sloshing through the leaf litter, I cursed my luck. All my planning had been undone by this unexpected turn of events. Nonetheless, I took some comfort in the fact that the season wasn't yet half an hour old; there was plenty of time for things to go right.

That thought had barely crawled through my mind when I heard the familiar, metallic sound of a climbing treestand ratcheting its way up a tulip poplar less than a hundred yards away, just at the edge of the next property. Here was yet another unanticipated and unwelcome development. What self-respecting bowhunter waits until half an hour after dawn on opening day before arriving on stand? He seemed to fumble and clatter around for at

least another 15 minutes before finally settling in less than eight feet off the ground. As far as I could tell, he never detected my presence.

My hopes were sinking faster than an iceberg-plagued cruise ship. Incredibly, 20 minutes later, a smallish 7-point buck came slinking cautiously through the woodlot. The buck's path would take it directly between the late arriving archer and me. When the buck was just about halfway between us, I detected a skylighted motion. Larry-come-lately was drawing his bow. The buck immediately detected Larry's clumsy movement and froze, peering directly at the archer some 50 yards away. Larry let an arrow fly. It sailed well short, clanking into the outstretched branches of a fallen beech tree.

The deer jumped and took a few steps back. Larry reloaded and fired again with much the same result. This time the deer beat a hasty retreat. At that point it was also time for me to beat a quick — and definitely more disgusted — retreat, too. All my careful planning had gone down the drain, and I could thank that most unpredictable of early season factors: other hunters.

Like any bowhunter with three decades of experience, I know there are two times during the Pennsylvania bowhunting season when I'm most likely to bag my deer. These most fortuitous times are at the end of the season, when bucks let down their guard during the rut, and at the outset of the season, when the deer — relatively undisturbed — follow fairly predictable patterns from feeding to bedding areas in the morning and bedding to feeding areas in the evening.

Experience has taught me that the best time to take a trophy buck, especially in the years since the season was extended to

mid-November, is at the end of the season — the later the better. But the best time to take a deer (including does, young bucks, a few mature bucks and an occasional trophy) is during the first week or so of the season. This early season window for success is heavily influenced by a myriad of factors. The most significant being hunting pressure — yours and other hunters'.

How long that window stays open is contingent on other things as well, but hunting pressure is first and foremost. Even the least wary deer soon detects disturbances that weren't there just the week before, and disturbed deer soon abandon their usual routine as they become more cautious and nocturnal. Unfortunately, no matter how careful you are in keeping your impact on their environment to a minimum, you can't control the actions of other hunters.

And don't think these hunters have to be hunting on your designated properties, no matter how private or exclusive, to corrupt deer behavior. If the deer get spooked often enough on the neighbor's farm, their newly inspired wariness is going to carry over into your hunting domain. In many respects, there's nothing you can do about such a scenario, except know that it exists and deal with it accordingly. "Dealing" with it means understanding how briefly that early season window of opportunity might be open. Of course this will vary from region to region. Here in the southeast where

EARLY or preseason scouting excursions should be kept to a minimum. Too many forays into the woods might cause deer to abandon their normal patterns.



suburbia blends with the rural, woodlot patches get hunted hard during the first week and it doesn't take long before it seems that every deer goes into ultra-alert mode.

It's been my experience here that if I don't kill a buck by the first Tuesday of the season, it's probably not going to happen for me until the rut rolls around. I've found that by Wednesday of that first week, the deer (and especially the bucks) suddenly get awfully scarce and they pretty much stay that way until rutting activities begin. My theory holds that after three full days of hunting pressure, the deer adjust their patterns. These pattern changes involve changing preferred routes to feeding and bedding areas, returning earlier (often before dawn) to bedding areas and heading out to feeding areas later (often after dusk). The early window of opportunity has suddenly slammed shut. Of course, in other areas of the state it may linger a bit longer. If you hunt remote, semi-inaccessible areas, that window may stay cracked open all season long.

Now this is not to say that you can't kill a Pennsylvania deer with a bow in the middle of October. It happens all the time, but it's usually a much tougher task — particularly with bucks. Of the dozen or so Keystone State bucks I've killed with the bow over the last 20 years, there were only two that I didn't bag either in the first three days or the final week of the regular bow season. My current approach to the bow season reflects my experience. I hunt the first three days hard while the early window is still open, then find myself letting up or not hunting quite so vigorously until the end of the season. Admittedly, this practice may contribute to a self-fulfilling prophecy that might help validate my premise.

When I returned to my woodlot on the first Monday afternoon of that 1991 season, I placed my stand in a different corner of the property. Less than an hour later, two small bucks came slinking through the

underbrush. They were at least 40 yards away, but they were headed in my general direction. In a moment I noticed a third buck, hanging well behind the first two. This buck was a decent trophy. If he continued to trail the first two, he would offer me a reasonable 25-yard shot. I gently lifted my bow and nocked an arrow.

Suddenly the lead buck, a forkhorn, snapped to attention, but it wasn't my movement that had caught his eye. He began stomping his hoof and bobbing his head at a more distant disturbance. I followed the buck's glare until I saw it, too. It was Larry again. He was barely six feet off the ground, in the same tree as on the opening morning. I couldn't believe I hadn't noticed him until now. From the bucks' vantage point he must have stood out like a sore thumb, skylighted by the setting afternoon sun. The bucks never came into range. Agitated, they receded back into the woodlot. As far as I could tell, Larry never knew the bucks were there. He had foiled me again.

The next afternoon — the first Tuesday — I had the distinct impression that, given all the sloppy hunting activity in and around my woodlot, my early season window of opportunity was about to slam shut. Luckily, Larry didn't make the scene that afternoon, and I managed to arrow a respectable 7-point.

The earliest part of the season can and should be the most productive time for any bowhunter. The impact of other hunters, particularly the more careless ones like Larry, is beyond our control. The best thing a bowhunter can do is to tend to his own business and hope other hunters do the same. Aside from being in the woods early and often and trying to score before that early window of opportunity closes, let's consider the rest of the formula for early season success and hope that, perhaps, other bowhunters who impact on your area are paying attention.

Scout during the preseason but not excessively. This is often overlooked. Like a

lot of hunters, I enjoy spending time in the woods, and scouting gives me an excuse to do just that. After one or two forays, however, most bowhunters have a fair sense of where they want to be when the sun rises on opening day. More than one or two scouting expeditions can put deer on the alert. This becomes more of a factor if many others may be hunting the same area. Actually, if you've planned ahead, much of your pre-season scouting was done at the end of last year's season, noting rubs and scrapes and other evidence, much of which will still be worthwhile information heading into the new season.

Now let's assume that every bowhunter hunting in or adjacent to your woods is doing extensive scouting in the weeks just before the season opens. Just three or four bowhunters making four or five forays apiece represents as many as 20 disturbances in your territory; 20 potential disruptions of the patterns developed during the off season. If there are more hunters doing even more scouting — well, you do the math.

Scout thoroughly. If you're going to limit the number of excursions into your woods, you need to make each visit count. Most hunters try to identify bedding areas and preferred feeding areas, such as soybeans, cornfields, fruit trees, acorns and other mast. They'll then determine the favored travel routes among these areas, factoring topographical and structural features into the mix before selecting likely trees in which to hang their stands. It's surprising how many hunters don't take the time to sit in the woods at dawn and dusk in order to witness deer movements firsthand.

This kind of "dry hunting" is one of the most effective ways to scout for the early season. The best approach is not to use a stand you actually plan to hunt from during the season. Instead, set up a stand in a position that offers the widest view of the area you plan to hunt — perhaps a tree at the edge of the woods. This way you can note any deer movement with minimal

intrusion into the most active areas.

Stop scouting at least a week, and preferably two, before the season opens. Two weeks gives the woodland dynamics a reasonable amount of time to return to normal patterns. If you're hanging treestands, cutting shooting lanes and marking distances with all the tumult these activities entail, get it done as early as possible.

Always wear a masking scent when scouting or hunting. Fox and raccoon scents are best. Fox would be the choice if you're staying on the ground, raccoon if you're climbing into trees. A word of advice: Don't use skunk scent. Many years ago, I spent too many unsuccessful seasons using skunk to disguise my odor. Deer snorted me and avoided me like, well, like they would avoid a real skunk. Today I use raccoon scent. Many bowhunters use scent removers or earth scents in tandem with or in place of masking scents.

Wear clean rubber boots. Leather boots or cloth sneakers will track human odor all over the place. Rubber boots, especially those treated with scent removers or masking scents, will help your visits stay relatively undetected.

Wear clean, unscented clothes. At the very least, don't throw your scouting or hunting clothes in the dryer with scented sheets of static-guard, fabric softener or other such products. Serious hunters I know wash their hunting clothes with baking soda, then store them in a plastic bag with earth-scented wafers or other scent suppressing products weeks before opening day. During hunting season, you should also bathe without applying scented soaps, aftershaves or colognes. A smart buck lives and dies by his nose. Your job is to see that the latter happens.

Be settled in your stand an hour before legal shooting light. I know some guys who carry this to extremes. Maybe its early season anxiety, but some bowhunters like to be on stand two hours or more before first light. They want to give the woods plenty of time to settle down after hiking to their



HUNTING from treestands placed at least 20 to 25 feet off the ground can help archers remain undetected for longer periods, extending that early season window of opportunity.

stand, but in most cases, an hour will suffice. Less than that and you're likely to end up spooking the deer you would have otherwise seen when the sun came up.

Don't quit early. For some guys that opening day adrenaline burns off quicker than the morning dew. They get bored or antsy after an hour and decide to bag it for the day or go for a walk in the woods while telling themselves they're "still hunting." Early season deer that haven't yet been alerted often take their sweet old time getting back to their beds after feeding all night. If you don't hunt until at least 10 a.m. those first few days, you're not being fair to yourself.

Set up early in afternoon stands. By the same reasoning, unalerted deer tend to move to feeding areas earlier in the day. This will change as the season wears on, but adding an hour or two onto the front end of an afternoon's hunt during that first week can pay off.

Be flexible. Have a plan B, C and D. Don't doggedly stick with a stand where you're not seeing deer or where other hunters have intruded. If you've scouted thoroughly you should have at least three or

four early season stands set up on different properties or at least at significant distances from each other. Having "dry hunted" these areas, you will have determined if they will be most productive as evening or morning stands. The fewer stand locations you have planned out in the preseason, the fewer options you'll have after opening day.

Use calls sparingly. Yes, it's true deer are vocal, but I've heard some early season hunters grunt, bleat and antler rattle their brains out on opening day, even when there were no deer in sight. No doubt they were doing themselves more harm than good, although the judicious use of doe and fawn calls can be effective in the early season.

One season I grunted in a young 6-point on opening day. I suspect he responded out of curiosity as much as anything else. Mature bucks may also respond out of curiosity in the early season, but you're more likely to put them on their guard. Calls in the early season, particularly doe and fawn bleats, are probably most effective when used to coax sighted animals into range.

Hunt high. I use both hanging and climbing stands, and I'm not comfortable unless I'm 20 to 30 feet off the ground. Early season deer that don't see or smell you will follow their patterns longer, and hunting high helps accomplish this. Of course, height is a relative thing if you're hunting hilly or mountainous terrain. You can be 30 feet off the ground and still be eye level with a deer 10 yards away. Just make sure you're not backlit and casting obvious shadows across terrain where you expect deer to appear. Hang your stand with these things in mind.

Remember, the longer you can keep the deer you're hunting undisturbed and unalerted, the better your chances for early season success. If your woods become contaminated with the residue of careless hunting (your own or other hunters') the deer will respond accordingly and that window of opportunity will squeeze shut. Don't expect it to pop open again until the beginning of the rut. □

The Shooters' Corner

By Don Lewis

The modern projectile has advanced light years since a carefully placed stone from the sling of David brought the giant Goliath crashing to earth.

Projectiles — Then and Now

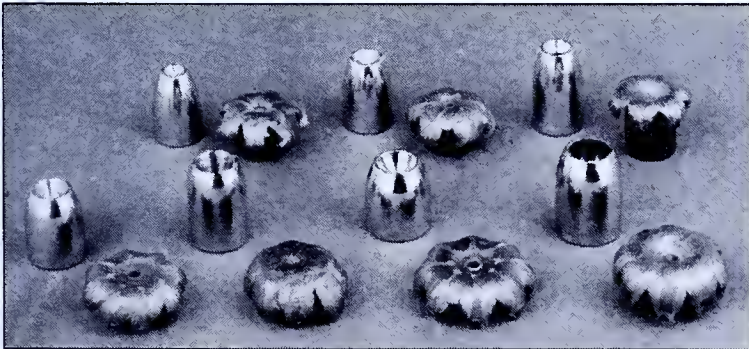
I SUPPOSE it's fair to say the first projectile used by man was a thrown rock. It can also be assumed that the club was the first weapon man used to protect himself. History reveals that primitive man was no match against many types of wild beasts of that time. He was much weaker and not nearly as quick as many of the animals that roamed throughout his domain.

Although a heavy club probably won many battles for early man, it wouldn't take long until he realized getting in close enough to swing a club was, in fact, getting too close. Throwing rocks at a cornered enemy allowed man to be in a relatively safe position, but some of his adversaries were simply too tough to be stopped

quickly with a barrage of stones and rocks. Man still needed to get farther away and yet still be able to fend off his foe. At that point, the spear possibly made its debut.

At first, spears were little more than sharpened sticks, but these dulled quickly and had little penetration potential. A tinkering mind came up with the idea of using pointed stones or bones for spear points. Finally, iron and bronze tips replaced stones and fire-hardened wooden tips. Man was beginning to grasp the lower echelon of ballistics.

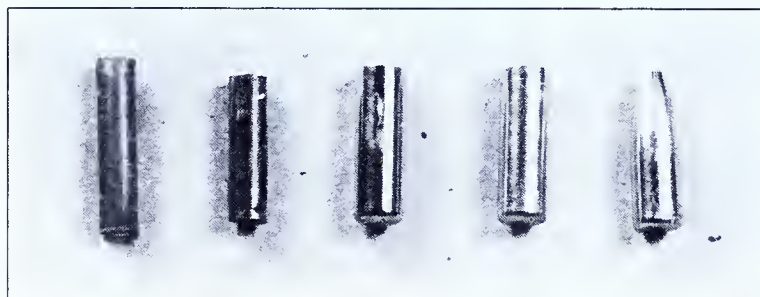
The thrown stone was effective on small animals, and with the advent of the sling, the stone's velocity and range were greatly increased. The greatest testimony to a sling's effectiveness is found in the Old Testament. "And David put his hand in his bag, and



MODERN technology has enabled today's bullets to be the best ever. Note the "mushrooming" qualities of these Speer Gold Dot handgun bullets.

took thence a stone, and slang it, and smote the Philistine in the forehead, that the stone sunk into his forehead, and he fell upon his face to the earth." Note that the stone sunk into his forehead, which shows David's sling put a significant amount of velocity on the smooth stone he took from a brook.

While clubs, axes, spears and hand-thrown projectiles held the spotlight



BULLET making process — left to right, rough core, swaged core, jacket, core in jacket and finished bullet.

with the military for many years, armies with the best technology won battles. Although nothing was known about external ballistics, it became common knowledge that weapons were needed not only to create damage to walled cities, but also to penetrate handheld shields and body armor at great distances. The long bow and the sling (Roman slingers used a lead projectile that could be thrown a long distance even though it had little ability to penetrate armor or shields) were fairly effective at long ranges but lacked accuracy.

The weapons needed would have to wait for the age of gunpowder. History reveals that gunpowder was not an immediate success with the military. The first recorded history of gunpowder being used was during the battle (fixed cannons were in use at forts some years earlier) of Crecy in 1316. With all its flash and thunder, gunpowder weapons were not as effective as a shower of arrows falling from the sky.

Gunpowder may not have played a major role in the battle of Crecy, but it was the first step on the way to changing not

only the outcome of battles but history as well.

The first firearms were crude cannon-type contraptions that fired stones, iron balls and even large arrows. They were cumbersome and difficult to transport. These massive vases or pots had more of a psychological impact on the enemy than anything else. This psychological fear was overcome quickly, though, and the belch-

ing cannons were literally useless against individual troops. A handheld weapon that could be aimed at a single enemy was needed. This came about in the 15th century, in the form of the matchlock harquebus.

The matchlock musket changed the way wars were fought. The

matchlock was a shoulder weapon that was ignited by pulling down a burning wick (match) onto the touchhole on top of the barrel. One man could do this while, at the same time, aiming his weapon.

I'll not go any further into the development of the rifle, because this column is about projectiles. From the artificially made round stones and four-sided iron arrows fired from the tube-like cannons to the perfectly balanced custom benchrest bullets by Berger, Euber and Shilen, projectiles have traveled a long and difficult but successful road.

As mentioned, just about any type of object imaginable had been used as projectiles in earlier military weapons. The early matchlocks had large bores nearly an inch in diameter and their projectiles could penetrate flesh and crush bones in a way no arrow could. As the smoothbore musket eventually evolved into a rifle that had spiral lands and grooves in the bore, the round lead ball that had been used for several centuries was replaced with the elongated bullet. There are probably two good

reasons for this: Making a lead ball spin is difficult because the ball itself is smaller than the bore. (It's the patch the ball is wrapped in that imparts a certain amount of spin to the ball.) And, an elongated bullet has a better aerodynamic shape than a lead ball and carries farther with more accuracy.

Of all the materials used for rifle projectiles, nothing compares with lead. Lead is dense, melts at a fairly low temperature and is easy to swage or form (cast). Lead was the number one metal used until centerfire cartridges and smokeless powders raised both chamber pressures and velocities. At high speeds, lead will not hold to the rifling. Consequently, the solid lead bullet was replaced with the jacketed bullet.

Lead didn't exactly lose out, because jacketed bullets have lead cores. The hard jacket adheres to the rifling and also withstands the heat and thrust of the burning powder without deforming. It might be a good idea to take a quick look at bullet making.

First and foremost, I'm not a dyed-in-the-wool bullet maker. I have made some 52-grain .224 bullets with Corbin dies that shot less than 1-inch groups at 100 yards. Also, the procedure I used might be vastly different from methods and equipment used by custom bullet makers.

Because the .224 jackets I used weighed 15 grains, I had to put in 37 grains of lead to make a 52-grain bullet. The first step is cutting or casting the cores. I cut 37½-grain pieces from pure lead wire. The second step is swaging the core to size and weight. It's imperative that all cores be the same lengths. The rough core is shoved into a core-sizing die that has been adjusted (trial and error) to turn out a 37-grain finished core. The core-swaging die has several bleed off holes, and the extra lead shoots out in tiny slivers.

The core is now swaged to weight and firmly packed, eliminating any air pockets. The next step is seating the core into

the jacket. The core-seating die puts plenty of pressure on the core, guaranteeing that it fills the jacket from wall to wall. It also expands the jacket to around .2236 (slightly under .224) The last step and perhaps the most difficult is point forming. It's another trial and error setup that also expands the bullet to .224.

Down through the years the goal of bullet manufacturers has been producing the perfect bullet. It's safe to say that today's bullets (both factory and custom jobs) come close. I recall using inexpensive hunting bullets in the 1950s that were a full one-thousandths of an inch or more over size. They were far from being balanced.

Positive proof of this is in the bullet group sizes obtained today compared to those of the '40s and '50s. Sure, rifle tolerances are probably more exact today, and we can't overlook the sizable amount of technology that has gone into barrel making. Still, with all these advances, a bullet is strictly on its own when it breaks free of the muzzle. If there's the slightest defect, its course of travel will be off. Maybe only by 1/8-inch, but that's enough to lose a match.

A chuck hunter I know is so dedicated that he uses only Berger varmint bullets, and I can't disagree. I get jagged one-hole groups from a 6mmBR heavy barrel with Nosler's 55-grain Spitzer Trophy Grade bullets. My friend, Jim Peightal, and my son, Darrel, scored heavily on Nebraska prairie dogs with Sierra's 55-grain match bullets.

My last buck was taken with a Model Seven Remington chambered for the 7mm-08. It was a one-shot kill using a Nosler 150-grain Ballistic Tip. The modern bullet is state-of-the-art in design and manufacture. Knowing where to get top quality bullets is no longer a secret shared by a few competitors and handloaders. Your local sporting goods store can sell you superb bullets right over the counter. We've come quite a ways from stepping outside a cave and looking for a smooth stone. □

In the Wind

By Bob D'Angelo

In recent years hunters have harvested approximately 600,000 lesser snow geese annually in North America. To reduce the burgeoning mid-continent snow goose population to a sustainable level, it is estimated that hunters must take one million birds each year.

Every state except Hawaii has reported rabies in bats, with the most cases reported in California and Texas. Although bats are not the most common wildlife species diagnosed with rabies (positive bats range from eight to 27 percent of rabies-positive wildlife cases per year), almost all recent human rabies deaths in the U.S. have been traced to bats. Since 1981, 24 people have died from rabies infections acquired in the U.S., and 21 were due to strains of rabies virus associated with bats.

There were 17 elk taken by 20 permit holders during Arkansas' first elk season last year. More than 15,000 Arkansas residents applied for 18 free permits, and the other two were issued through fund-raising activities by the Rocky Mountain Elk Foundation. Elk were restored to Arkansas beginning in 1981. Arkansas is the first southern state, not including neighboring Oklahoma, to have an elk hunt. Several other southern states have begun elk restoration programs.

Louisiana ranked 13th out of the 50 states in hunting related expenditures. The top states were Michigan, Texas and Wisconsin, all with more than one billion in sales for hunting activities. For migratory bird hunting related activities, Louisiana ranked 6th in the nation.

For the third consecutive year, members and volunteers in California raised more money for Ducks Unlimited than any other state. In the fiscal year that ended February 28, 1998, California members raised \$10,489,743 for DU — more than twice as much as the second highest contributor — Wisconsin. The money will be used to restore, enhance and protect wildlife habitat all across North America.

Hunters in Oklahoma had one of the safest years ever in 1998. With more than 310,000 hunters, only seven hunting incidents — including one fatality — were reported. Of those, five involved the use of treestands.

There were 8,295 turkeys taken by 40,750 permit holders — 20.4 percent success rate — in Wisconsin during the 4-week fall season last year.

In July 1998, the Animal Liberation Front (ALF) staged a break-in on the laboratories of the Wisconsin-based United Vaccines and released 160 mink, which were being used for vaccine testing. One mink bit an 8-year-old girl, but fortunately, the mink tested negative for rabies. In a twist of logic, ALF put the blame for the girl's injury on United Vaccine. Ironically, many of the mink were killed by cars soon after their release.

Answers: 3, 5, 7, 9, 11.

Branta Canadensis Interior.

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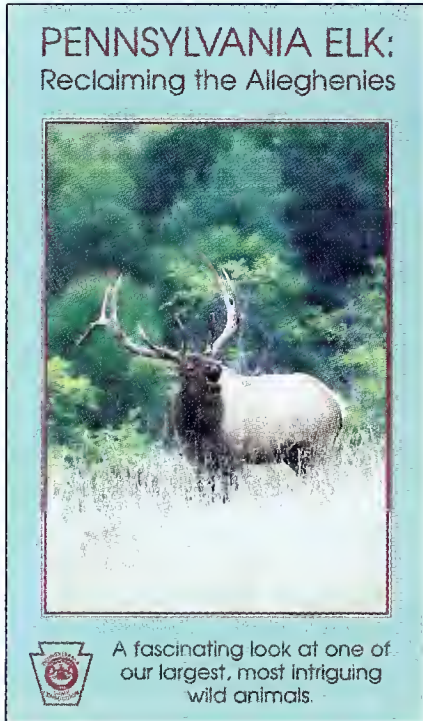
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bulls sparring in the
rut, cows with their

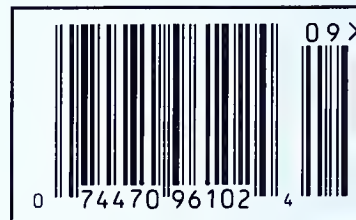
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Best Hope

WHAT COULD BECOME the most significant wildlife conservation bill in the past 50 years is currently being considered in Congress. Called the Conservation and Reinvestment Act of 1999 (CARA), the legislation is designed to provide, from offshore oil and gas lease revenues, around \$400 million a year for wildlife conservation. CARA is a spinoff of the Teaming With Wildlife initiative introduced about five years ago. Teaming With Wildlife called for federal excise taxes to be placed on binoculars, camping equipment and other outdoor recreation equipment to fund state wildlife related programs. Teaming With Wildlife failed to gain much legislative support, however, because it required the establishment of new taxes.

The need for an adequate and reliable way to support wildlife conservation programs is widely recognized, however, hence the development of CARA.

When it comes to funding for fish and wildlife, programs for game animals are well established and funded through the sale of hunting and fishing licenses and federal excise taxes on hunting and fishing equipment. At the other end of the spectrum, through the Endangered Species Act, monies are available for species on the verge of extinction. But for 86 percent of our wildlife species, some 2,000 species of birds, mammals, fish, reptiles and amphibians, no reliable form of funding exists.

Many states, including Pennsylvania, have tried to address this need through income tax checkoff programs, special motor vehicle license plates and other voluntary contribution programs, but these have fallen far short of what's needed. The International Association of Fish and Wildlife Agencies has estimated that meeting the needs of non-game wildlife across the country would cost approximately \$1 billion a year, yet less than \$100 million is currently being spent.

The Conservation and Reinvestment Act has been introduced in the House as H.B. 701 and in the Senate as S.25, and they both enjoy widespread bipartisan support. The bills are similar, and barring any changes that would drastically alter their intent, they deserve the support of everybody interested in the future of our wildlife resources.

Currently, \$4 to \$5 billion is earned from offshore oil and gas leases. Under CARA, most of this revenue would go for coastal restoration and conservation in the states where the offshore drilling is taking place, and to support the Land and Water Conservation Fund and other recreation programs.

For wildlife conservation, the House bill calls for 10 percent (\$450 million) to be used for state wildlife programs; the Senate bill, 7 percent (\$320 million). These monies would be allocated to each state. Pennsylvania stands to receive \$25 million or more a year.

CARA is likely to come up for final vote in the coming weeks. Watch local news for the latest developments, and visit www.teaming.com for further information. More important: If you support this cause, let your congressman and U.S. senator know.

Great strides in wildlife conservation have been made in the 20th century, but if we're to meet the needs of our wildlife resources in the 21st century, adequate and reliable funding from more than just hunters and fishermen is a must, and CARA represents our best hope. — *Bob Mitchell*

letters

Editor:

I would like to thank your agency for participating in the "Women in the Outdoors" event held in Greensburg last summer. A hunter for many years, I appreciated the opportunity to meet and chat with other female hunters.

Thanks also for the bluebird boxes. I'm looking forward to putting mine up in the spring.

D. BRANTHOOVER,
NEW ALEXANDRIA

Editor:

After reading the "Letters" page in the August issue, I've changed my mind about Sunday hunting. Accessible land, private or public, is the most important issue facing hunters today.

There are many reasons a landowner might post in objection to Sunday hunting, and if we lose even a single acre, that makes it a bad deal. Besides, the WCOs' jobs are tough enough.

T. BAER,
AKRON, OH

There are certainly two sides to this issue of Sunday hunting, and the legislature is to be commended for looking into it. If you feel strongly about Sunday hunting, either way, contact your state representative and senator.

Editor:

In response to the letter suggesting that there be a season on groundhogs, the animals are destructive to crops and their burrows are dangerous to anybody operating machinery. I've

shot 29 groundhogs from my $\frac{3}{4}$ -acre field of soybeans, and still about a quarter of the beans have been eaten.

H. EHRHART,
NEWPORT

Editor:

I am 67 and have been hunting since I was 12. For 45 years I've been hunting from a cabin in Lycoming County, enjoying it with my dad until he passed away in '93. For years we used to put out apples from October through winter to feed game, but now, thanks to those who bait animals for hunting, we've had this pleasure taken away.

R. HESS,
MECHANICSBURG

Editor:

When your July issue arrived, we couldn't believe how beautiful the cover was. Everyone we know was talking about it with great pride. We think it was one of if not the best covers yet. We all hope to see many more covers by Ned DuBeck.

D. SAMUEL,
WARMINSTER

Editor:

Reading the Field Note in the August issue about the students picking up 1,180 pounds of trash made me proud of them and ashamed of the people who put it there. Every time I go in the woods I come home with a load of trash, and I can't help

but wonder when we all are going to clean up our act.

A. DUFFIELD,
HATBORO

Editor:

"Tips Last Bunny" and "When the Leaves Change" in the August issue left me with tears in my eyes, tears of joy. Those who have never experienced the love that exists between a hunter and a dog are really missing something.

H. KURTZ,
MORGANTOWN

Editor:

It was a pleasure to find a notice in a recent issue that my subscription was about to run out. I get several magazines, and most of them start sending out renewal notices six months or more before my subscription is up. Your reminder, one month in advance, is all I need.

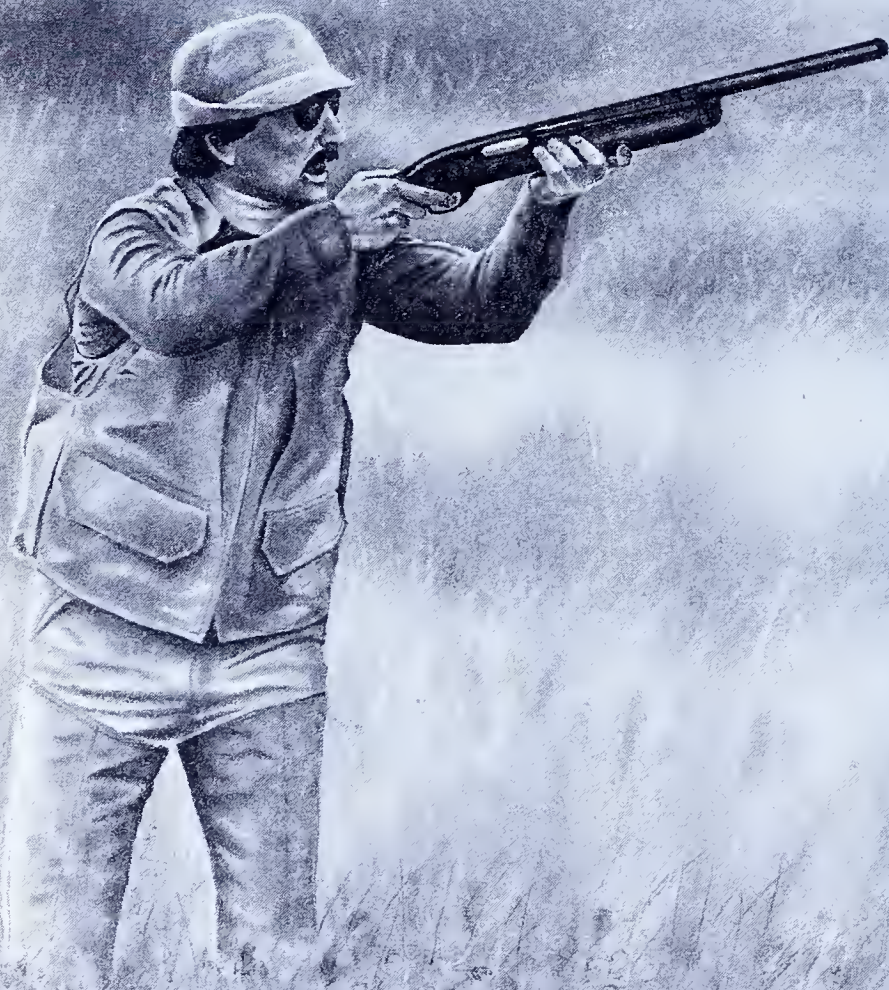
E. MACKEY,
RICHMOND, VA

Editor:

It was great to read about Deputy Joe Wisniewski receiving the outstanding law enforcement award for Erie County. Joe is a dedicated officer and has been an excellent Hunter-Trapper Education instructor, too. He also puts in many other hours working with young people in our area.

C. HAMMER,
HTE INSTRUCTOR,
NORTH EAST

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**



Scott
Calpho

The Fourth Flush

By Dave Dufford

SOMETIMES hunters are fortunate in finding a small area that almost never fails to produce one kind of game or another. When I was a kid, a small, thick patch of elderberries grew along the lower edge of our field. It was next to impossible to start a beagle at one end of that patch without a rabbit coming out the other.

Over the years I've found a few places that, although not as consistent, are well worth checking out when I happen to be hunting in the vicinity. I found just such a place while hunting for grouse a few years ago, not far from the new home that my family and I had just moved into.

I was still learning my way around the local countryside when I flushed two pheasants from a low, swampy field. I shot the first one, but a few minutes later, when the second bird came up, I missed with both barrels. It was late in the day, and because it was the first time I'd hunted there, I made plans to return the next day.

The following afternoon I hunted the field, but had no luck at all until I started into the woods along its far lower end. From the swampy area where I had found the pheasants the day before, the field rose up over a steep hillside, wrapping itself around the end of a narrow ridge that extended out off a larger hilltop. Along the far side where the woods began, the hillside ended abruptly at a thicket. I hugged the lower end of the hill, in the more open cover, and put my dog to work in the thick stuff below me to my left. We hadn't gone far when I heard wings beating the brush. I should be able to tell the difference just by sound alone, but with pheasants on my mind, I hesitated a moment until I had a good enough look to be sure that the dog hadn't flushed a hen. By the time I was sure

the bird was a grouse, I only had time to take one quick, ineffective shot as it passed overhead and slightly behind me.

The grouse had come up like a missile, arcing its way up across the field toward the outer point of the ridge at the top. I didn't see it land, but judging from its flight path, I was sure I could find and flush the bird again.

Above the field there was a narrow strip of hardwoods that grew along the top of the ridge, tapering to a point at the crest at its outer edge. I was out of breath from the steep climb when I neared the top and found a narrow open swath that cut across through the trees close to the point. When the dog flushed the grouse ahead of me it headed straight away along the opening. For a moment I didn't think I'd be able to get a shot, because the bird never climbed more than three feet off the ground and the dog was directly between us. But when the grouse hooked to the left, giving me a clear shot, I dropped it with a light load of No 6s from the right barrel of my 16-gauge.

I've lost track of the number of times I've flushed grouse from the tip of those woods since that day, but despite all the open sky beyond them, I haven't gotten a shot at any of them. I probably wouldn't have been able to get that first one if it weren't for luck, because the topography lends itself well to the flight of an escaping grouse — and the birds know this. Without a doubt, that's why I find them there so often. There is just enough food and cover to attract them

to the spot, and on several occasions I have found places where grouse have dusted. Beyond the outer edge of the narrow strip of trees, grouse need only to rise a few feet off the ground and simply follow the contour of the land to make a fast getaway. Approaching the tip of the woods by hunting toward it through the strip of trees covering the top, or from the opening on either side, all a grouse has to do is jump over the edge of the far side and it's out of sight in an instant. Approaching it from the outer end, the grouse would use the same ground hugging tactic and fly back through the strip of trees before a hunter could get far enough uphill to see its flight. Two hunters could work this spot effectively, but I usually do most of my hunting alone.

Last year I made my first trip to the point early in the second week of the early small game season. I was hunting my way out along the top through the strip of trees toward the outer end, when I suddenly saw a grouse through the leaves. It was less than 40 yards away, perched on the lower branch of an oak. It was about eight feet off the ground, and for a moment I allowed myself to get my hopes up. If it flushed from the tree, I might at least have a chance to make a shot before it could drop from sight below the end of the hill.

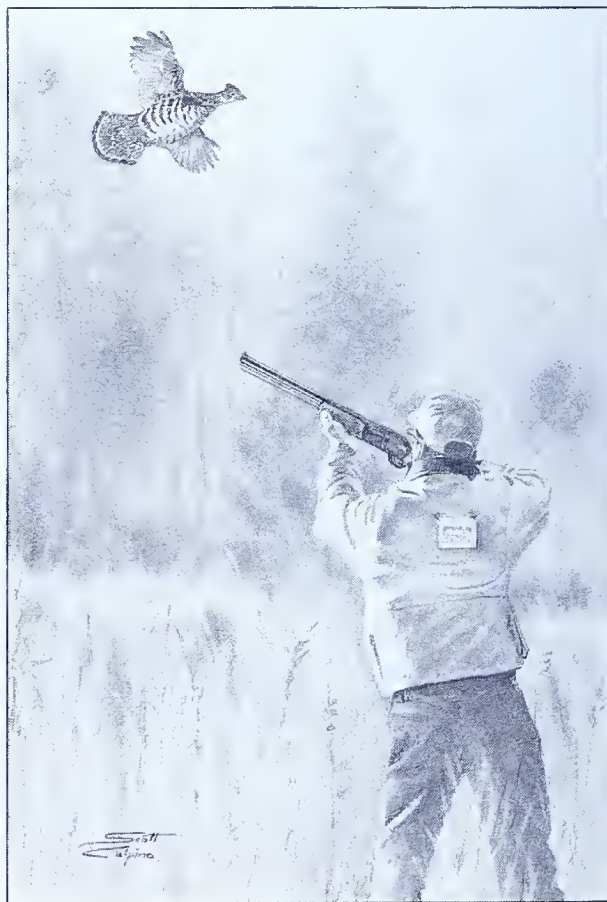
Anyone who uses the term "dumb animals" with sincerity has obviously never done any hunting. After sighting the grouse, I had taken only a few cautious steps before the bird

made its move. Instead of the flush I was expecting, the grouse surprised me by dropping off the limb and landing on the ground. It took a few steps toward the crest of the hilltop, and when it flushed it dropped out of sight below the edge before it was out of hearing distance.

Nine days later I was hunting for pheasants in the field below and thought about grouse as I worked my way uphill toward one side of the point. I kept to the field as I moved along the outer edge of the trees, and my dog tipped me off that a bird was near. As the grouse came up, I had just enough time to raise my gun and flip off the safety before it dropped from the far side this time, which was an improvement from what usually happens when birds flush from this point.

Close to two weeks had passed before I took another swing by the point. I approached from the same side again this

THE GROUSE had come up like a missile, arching its way up across the field toward the outer point of the ridge at the top.



visit, but I decided to cut across the narrow strip of woods, about 30 yards back from the outer edge. I was more than halfway through when I stopped to watch as my dog began nosing around near the outer end of the point. I thought that perhaps a grouse had flushed from there before we got close enough to hear it, when suddenly one came up in the strip behind me. I was able to get the gun up and safety off again, but by that time the grouse had put too many trees between us as it flew straight back through the strip of hardwoods.

It was exactly 10 days later before I hunted the point again. It was Thanksgiving, and my son Jake joined me. This was the first year that he was old enough to get a license to hunt, but he had been tagging along with me from time to time for many years. I kept Jake close by my side when we hunted together. I put him a few steps ahead of me when our dog was working a pheasant, so that he would have the first shot. He did well on squirrels, and had taken a few shots at pheasants, but we found out early in the season that he couldn't quite move fast enough to get a shot at a grouse. A broken arm shortly before the season opened left him a little stiff after the cast came off, so it was apparent to both of us that grouse hunting was Dad's domain.

Still, after working the lower field hadn't produced any pheasants, I had Jake in the lead as we climbed to the point. We kept well out from the treeline as we circled around the end of the point and came in from the other side. I whispered to Jake to stay alert and told him about the flushes I'd had here earlier in the season. Jake's only response was, "If a grouse goes up, you better shoot."

We had reached the far side of the point when I noticed our dog was moving from the field into the edge of the brush along the treeline to our right. Before I had time to point it out to Jake, a grouse exploded about 15 yards ahead of the dog. A shot from my double hit the bird when it was

10 feet above the ground and it flattered out of sight below the opposite side of the point. Not a good hit, but the grouse had obviously taken some shot. The dog had the bird for us before we got to it.

It was only the second time I'd shot a grouse from the point, and it was the first time I'd taken a grouse while hunting with Jake. As I placed a tail feather in the side of his hunting cap, I told him it was to return the luck so that the next grouse might be his.

I wondered why the grouse had flown as high as it had before it started to move away. I had become so used to seeing them hug the ground to escape from here that a high rise made me curious. When I took a moment to study the area I noticed something that I should have seen sooner. It was a simple matter of nature taking its course, which had caused the different behavior.

The bird flushed from almost the exact same spot that the grouse a few years earlier had, and it flew away along the open swath in the same direction. While the grouse several years before had flown low, and made its mistake by swinging to the left instead of dropping below the edge once it had gone beyond the trees, this grouse had no choice but to rise higher. When I'd shot the first grouse here there had been nothing growing more than two feet high along the open cut, but time changed that. The open cut allowed the sunlight to reach the undergrowth, particularly along the southern side of the point. This grouse had to flush higher just to clear the thick new growth along the southern side of the cut, and that gave me just enough extra time to make the shot.

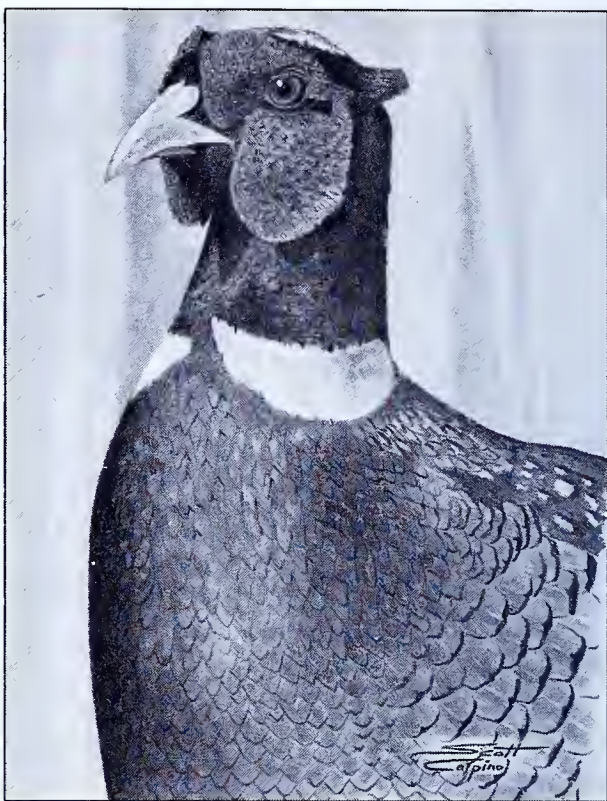
I now know that I'll have a better chance of taking a grouse from the point by making my approach from the north. The more I thought about it,

the more I began to realize that there was a broader lesson here that would be of benefit to anyone who spends much time hunting for grouse, particularly the solitary grouse hunter.

Grouse are masters at using any available cover to aid in their escape. They learn to escape, just like we learn the methods used to hunt them. As hunters, we tend to think of grouse habitat as being an area of land that is capable of supporting a huntable number of birds. Once we have found such an area, though, we usually become content in knowing that we will find birds when we go there year after year, and we'll often allow ourselves to develop a hunting routine. If we've had some luck in our approach to hunting a particular cover, we then fall into the habit of beginning and ending our hunt at the same points, with little variation of the route we follow in between. Likewise, grouse have learned their best escape routes in order to survive, and they will follow their patterns of success as readily as we follow our hunting routine.

It would be easy to think that grouse are born with the knowledge of using cover to frustrate the hunter, but their best tricks are only learned habits. If we want to improve our chances of shooting grouse we would do well to learn their habits. If they can learn to use every bit of cover to their advantage then so should we.

If a cover is hunted often enough, the hunter will find that certain places are more likely to produce a flush than others. When I hunted the point for grouse, I hadn't noticed or considered



I WAS still learning my way around the local countryside when I flushed two pheasants from a low, swampy field. I shot the first one, but a few minutes later, when the second bird came up, I missed with both barrels.

the idea of turning a few feet of new growth into an advantage. I always hunted that cover from the wrong side simply because it happened to be the way I was traveling.

I have since found another example of the difference a few feet of new growth has made at another spot where I often flush grouse. A couple of years ago I got shooting there frequently. I'm still getting just as many flushes there as ever, but I'm only hearing them now because the grouse have learned to use the new growth of a small number of young pines to their advantage. From now on when a bird escapes, take a few extra minutes to examine its flight path and make note of any cover it used. Perhaps the next time you pass there, you might be the one who is using the cover for an advantage. □

Partnership Down on the Farm

By Michael Pechart

PA Farm Bureau
Director, Local Government Programs

THE DAWN of Pennsylvania's hunting heritage dates back to when the first European settlers established the commonwealth and made it their home. This heritage remains strong, but has lost some of its significance due to the loss of hunters and of hunting's role as a necessity of life. The first seeds of Pennsylvania's agricultural industry were just being planted when Pennsylvania's hunting heritage was growing.

Agriculture would later become the 20th century's number one industry in Pennsylvania. But agriculture, too, has shown many signs of a weakened heritage and way of life in the commonwealth.

Early settlers relied on hunting to provide food, shelter and well-being for their families. As the years passed, farming and hunting became intertwined as common practices and ways of life that almost all Pennsylvanians took part in or were experts at. The closeness that farming and hunting shared, and continue to share, was due to the reliance on both practices as a necessity of life.

As the modern world evolved, many Pennsylvanians drifted away from both



FARMLAND is disappearing at an alarming rate in Pennsylvania. Low commodity prices, poor weather conditions, government regulations and other factors are forcing farmers out of agriculture, causing much of our prime agricultural and hunting land to be paved over.

agriculture and hunting. They no longer relied on these practices for food, shelter and clothing. Instead, they traveled to stores for their food and, as their schedules filled up, they lost leisure time and interest in hunting. Although farming and hunting continue to be economic leaders in the commonwealth, participation in both has been dropping. There are many reasons for that, and it's interesting to note that many of the reasons are similar. A hypothesis can be drawn that hunting and farming share similar values and traditions and, to a certain extent, rely on one another to remain viable. It is this common bond, which



CROP DESTRUCTION caused by wildlife is one factor that makes it hard for many farmers to realize a profit. It's estimated that wildlife damage to agricultural crops in Pennsylvania in 1997 totaled more than \$70 million. Damage like this, along with the inability to grow certain crops in some counties because of high deer numbers, are reasons why farmers need the help of responsible hunters to keep them viable.

dates back for many decades, that needs to be strengthened today. The strengthening of this bond will produce energy to give both industries a jump-start. It is of the utmost importance that children in Pennsylvania be given the chance to observe and participate in something their families before them did: farming and hunting.



Today, just like generations of farmers before them, most Pennsylvania farmers enjoy hunting's excitement and rewards. In a typical farmhouse, you will still usually find a beautiful, big racked buck mounted above the fireplace mantle, a bundle of fluorescent orange clothing hung on the back of the cellar door, and a gun cabinet filled with rifles and shotguns. And many farmers still make it their duty to get up extra early the first day of buck season, so they can finish the chores and milk the cows in time to get out in the woods before the crack of dawn.

Pennsylvania's sportsmen are much closer to agriculture and the rural way of life than nonhunters. Sportsmen need to foster strong ties with the agricultural community as a way to gain

access to some of the best small game hunting opportunities left in the commonwealth. And you would be hard-pressed to find one farmer who has not seen an "adequate" supply of deer on his farm at any time of the year. Farmers are some of the best conservationists, cultivating productive hunting habitat for a wide range of game species and providing some of the best hunting opportunities in the state.

Yet farmland is disappearing at an alarming rate. Low commodity prices, poor weather conditions, strict government regulations, and crop destruction caused by wildlife are forcing farmers out of agriculture, causing much of our prime agricultural and hunting land to be paved over. It's estimated that wildlife damage to agricultural crops in Pennsylvania in 1997 totaled more than \$70 million. Damage like

this, along with the inability to grow certain crops in some counties because of high deer numbers, are reasons why farmers need the help of hunters to keep them viable.

Just as many farmers have found their children unwilling to carry on the family farming business, Pennsylvania sportsmen have witnessed a loss in young hunters. Many reasons have been given for the lack of interest today, but the most obvious is that children have found other leisure and sporting opportunities that compete for their free time. This is a disturbing trend, not only for sportsmen, but for farmers, too, because they rely on these young hunters to help control wildlife on their farms in the future. And sportsmen rely on young farmers to keep some of their favorite hunting places just that — places to hunt.

What can be done to maintain and strengthen this important relationship between farmers and sportsmen? What can be done to enhance the future of two important industries in Pennsylvania? There are many solutions to these problems, and all call for the need for sportsmen and farmers to work together.

In a recent survey conducted by the Pennsylvania Farm Bureau, one of the major problems reported was hunter conduct. Of the 82 respondents, 19 farmers said hunter conduct on their farms was worsening. Poor hunter conduct while hunting on agricultural land usually results in the land being posted. This is a detriment to both the farmer and the hunter. Hunters lose access to good hunting land, and the farmer misses out on his best tool for dealing with crop damage — the hunter.

Sportsmen need to respect the land on

Sportsmen need to respect the land on which they hunt. Asking permission to hunt is the first step in gaining access to private land.

which they hunt. Asking permission to hunt, not driving on planted fields, closing gates, refraining from damaging trees in forested areas, and taking trash with you are all good practices that will gain sportsmen access to private land.

Some sportsmen have argued that because they perceive there to be a lack of deer on state game lands, the

Game Commission should cut back on antlerless deer license allocations. This belief has harmful economic consequences for the farming community. Farmers want sportsmen to know that deer overpopulation is having a detrimental effect on their livelihood, and that they need the help and cooperation of hunters to help alleviate such problems.

I hope that sportsmen will work to help preserve Pennsylvania agriculture by respecting private property owners and by putting forth effort to understand the problems farmers face every day. Farmers want to see hunters in action as much as possible, but in a safe and responsible manner. As a wise farmer once told me, "We all need to work together to solve the problems and issues facing us today. Sportsmen and farmers need each other today as much as they ever did. It is time to break down the walls that have been erected between us and work together to reach all of our goals."

How true are those words. Hunting and farming have storied traditions that I look forward to expressing to my children someday. We must all work to ensure that Pennsylvania's hunting and farming heritage remain alive for future generations. □

Tootsie, the Squirrel Dog

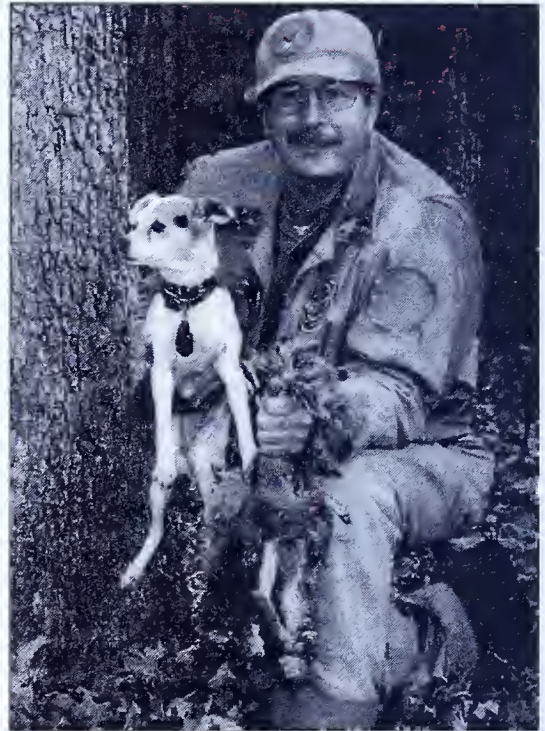
By Dennis Scharadin

Photos by the author

IT FELT as though my neck would snap. Craning my head skyward I searched the top of a tall hemlock for a squirrel that was flattened tight against the trunk. How did I know? At the base of the tree was a small whirling dog raising cane, telling the world that a squirrel was up there. Our job was to find it and put it in the game bag.

It was strange how this hunting adventure had come about. Its beginnings took place at an auction the previous spring. Several 12-gauge double-barreled shotguns advertised piqued my interest. One turned out to be a run-of-the-mill model, but another was a real beauty. Once the bidding began, though, only one other person was bidding. I was determined to go home with that gun, and it eventually became mine. After the auction, the other bidder started talking to me about guns, and that led to talking about squirrel hunting. He then showed me a photo of a small dog and a limit of grays. Before the conversation concluded, I was invited to tag along on a squirrel hunt.

The sun was just beginning to appear and the skies lighten when I pulled in behind Sterling Krause's car. Fidgeting in the front seat was Tootsie, a small, tan and white, animated dog wearing a fluorescent orange cape. She was, according to Krause, a strain of



STERLING KRAUSE with Tootsie, the squirrel dog. Krause figures he has averaged a kill for every six or seven squirrels Tootsie has treed.

rat terrier. Tootsie sat there, her 15 pounds all aquiver, shivering with anticipation as she waited for us to stop jabbering and finish getting our gear together. "She knows she's going hunting when I put her cape on her," explained Krause. "I made her that cape because once someone somehow shot my beagle."

Finally, we were ready. Krause was carrying a Remington 12-gauge pump and a scoped .22 pump rifle, and I had two cam-

eras and an Ithaca Model 37 20-gauge pump shotgun. Just before we left I asked Krause if I should let him know whenever I spotted a squirrel. He smiled and answered, "You won't see any squirrels today, except the ones that Tootsie trees." And as it turned out, he was right.

Attaching her lead, we crossed the road and started walking to where our hunt would begin. It was a wooded area that adjoined a cornfield. Having hunted small game with pointers, retrievers and beagles, today's hunt was going to be a first. Tootsie was a squirrel dog, trained to scour the woods and either find the scent of squirrels on the ground or sight and tree them. Once Tootsie treed a squirrel, she would bark up a storm, letting us know where both she and it were located. While squirrel dogs are common in other parts of the country, they're a rarity here.

As he released her, Krause looked at me and said, "I predict she'll tree her first squirrel in six minutes." He was wrong, her solo began in just a little more than four minutes. As we walked toward her "music," Krause explained that because the trees had dropped their leaves, the squirrels would be in one of three places, either at the top of the tallest deciduous tree, in a pine or

hemlock, or in a den.

He went on to explain that he finds squirrel hunting in October and early November the most difficult because the leaves make it harder to find a bushytail in the tree. But because the leaves provide security cover, squirrels are not as picky in finding a hiding spot. Although he hunts during the early season, Krause feels the best time to hunt squirrels is when about half the leaves have dropped. The squirrels feel protected and are not as careful when hiding as when the trees are bare.

When we reached her, Tootsie had assumed the position: Looking skyward, front feet planted firmly on the trunk of a tall hemlock, she let everything within earshot know that a squirrel was in that tree. We stood there for nearly 10 minutes, on opposite sides of the tree, slowly scanning the trunk and branches for any movement that would give the squirrel away. Finally, Krause said, "That bump about three feet from the top looks a little odd. Let me check it in the scope." Sure enough, it was the squirrel, barely recognizable. At my shot, the first squirrel of the day toppled out of the tree.

As we walked on, Krause explained that he had seen Tootsie in a backyard on his way home from work one day. She reminded him of a squirrel dog his father had owned, so he stopped and asked if the dog was for sale. Surprisingly, she was. That was 10 years ago.

He soon found that Tootsie was a natural squirrel dog. She learned quickly and easily. Since then, Krause and Tootsie have cooperated on 411 squirrel kills, many of them on hunts



TOOTSIE assuming the position: Looking skyward, front feet planted firmly on the trunk of a tall tree, announcing that she's got a bushytail located.



UNLIKE SITTING and waiting for squirrels to show themselves, hunting with a squirrel dog is action-packed and exciting. Tootsie even retrieves them.

with friends or family. Krause figures he has averaged a kill for every six or seven treed squirrels. Time of the year, the amount of leaves still on the trees, and the closeness of a hollow tree all influence whether a squirrel will be found.

No sooner had the crick worked its way out of my neck than Tootsie's excited barks began again. In no time she was barking treed in a spot with a mixture of pines and hardwoods. No matter how carefully we searched, we couldn't find any squirrels and no den holes. Tootsie, however, kept up her chorus, giving us a glance every now and then. After 15 minutes we decided to give up, but just as we turned to walk away, two squirrels started running. After the shots, Tootsie retrieved two more bushytails.

Normally, Krause hunts until only about 10:30, because by that time most of the squirrels will have fed and gone back into their dens. In the late afternoon, just before dusk, they become active again. But, for whatever reason, on our hunt they remained active until past noon. We managed to bag one more, which was centered with a load

of 6s as it jumped from one tree branch to another while crossing a creek. Two others made fools of us, though, when they scrambled into their dens once they were discovered. All told, Tootsie treed 21 times that day, and we saw six squirrels and killed four.

As we hunted back to the cars, Krause explained that right after a rain is the best time to hunt squirrels. The rain allows hunters to walk quietly, and Tootsie can sneak up on them before they see her. When she startles them, they head for the closest tree, giving hunters a better chance of finding them. If they hear her coming, they can tree and then jump from tree to tree, or den before she gets to them.

Krause also believes that the best squirrel hunting takes place where cornfields adjoin woodlots. Squirrels will travel from their den trees to feed in cornfields. Then, when caught unawares, they're forced to hide in the closest trees and can't get back to their dens.

Krause also believes that later in the fall season and during the winter season a squirrel will not climb to the top of a tall leafless tree. Instead, it will flatten itself where a large branch comes off the trunk. Another trick they do when caught in a tree of medium height is to climb to the top and curl up in a ball. This makes them look like a bagworm nest, and unless you look closely, you'll never know you're looking at a squirrel.

Unlike the normal method of squirrel hunting — sitting and quietly waiting for squirrels to show themselves — hunting with a squirrel dog is fast and furious excitement. You're constantly on the go as you follow the dog. Because of the dog's barking, every squirrel encountered knows it has been discovered and uses its skill to escape. On our hunt, most were successful, but some became the ingredients for a delicious potpie. □

Warm Weather Meat Care

By Albert Wutsch

Director, Academy of Culinary Arts,
Indiana University of Pennsylvania

IT'S 10 a.m. on the opening day of buck season, and you're kicked back and relaxed, admiring the nice 6-point you shot 15 minutes earlier. The temperature is climbing — it's almost 65 degrees. You're at a friend's camp about 300 miles from home. What are you going to do with the deer? This is a question many hunters were faced with last fall due to the unseasonably warm weather the first week of buck season. Many hunters faced what bowhunters routinely do: Weather that's too warm to hang and age the animal.

Many hunters lost their meat because they were unprepared to deal with it in such unseasonable weather. Some old-timers I know said they wouldn't hunt in that kind of weather. But for many sportsmen, this was the only opportunity to harvest venison for the freezer. Those fortunate enough to get a deer, however, were then faced with the dilemma of what to do with it. The following are guidelines for the care of the meat from the field to the freezer:

The most important step in field care is to lower the animal's body temperature. Field-dress the animal, and get the body temperature down as fast as possible.

Take photos and cape the deer if necessary.

Hang the animal by the hind legs. This is done for ease in skinning and butchering and also aids in bleeding the animal.

Do not cut the throat. This only ruins the cape.

Remove the skin. This will aid in rapidly reducing body temperature. Be careful not to touch the glands and then handle the meat. This will impart a gamey taste to the meat.

Next, remove the windpipe from the neck. This will prevent the blood from souring the meat.



NICK WARNER, Rushville, was down to hunting in a fluorescent orange T-shirt when he took this 8-point buck in Susquehanna County on last year's opener. Many hunters faced a similar dilemma last season: Weather that was too warm to hang and age deer.



CAL KLUEDER, Pittsburgh, with his Butler County 8-point taken on his 71st birthday. Hanging a deer by the hind legs makes it easier to skin and butcher, and it also aids in bleeding the animal.

Keep the animal out of direct sunlight. Some people like to hose down the carcass with water. I prefer to use a wet towel with cool water and a small amount of vinegar. This removes all hair and debris. If you are worried about flies being on the meat, then it is too warm to be hanging.

Now you face the critical decision. Do you bring the animal to a butcher? Some hunters bring the animal in, hide and all. Others skin and maybe quarter it before taking to a processor.

Due to last year's warm weather, there were so many animals taken in hide and all that many processors were overwhelmed with deer and had to turn people away.

If you have to break down the carcass yourself, get the meat in refrigeration or on ice in a large cooler as soon as possible.

The best way to butcher the animal is to first remove the tenderloins from within the cavity. Some people

call them the "fish." Next remove the front legs. Just pull up on the shank and cut around the blade; there is no bone connecting the front leg to the carcass, just muscle. Next, bone the backstraps by removing the long strip of meat on each side of the backbone, starting at the rump and working your way down the back to the neck. Bone out the neck. At this point, the only meat left will be the two hind legs and whatever is found on the ribs.

To remove the legs, bone around the pelvic bone and separate the two legs from the pelvic bone. You now have some large pieces of meat that can be placed in the refrigerator or on ice in an ice chest. Place a piece of plastic wrap between the ice and the meat to prevent it from soaking in water.

Now you can cut the meat at your convenience. This process should take about an hour; and once you've done it a couple times, it will go much faster.

Other important tips:

- Have the phone number and address of a good butcher in the area.
- Shot placement is extremely important, especially when there is no snow. A shoulder shot wastes a lot of good meat. A shot that downs the deer immediately when there is no snow will prevent a poor tracker from losing the animal.
- Milk jugs filled with water then frozen work well for cooling when placed inside of the carcass to lower body temperature.
- Keep the meat clean and free of debris. Don't cut the pelvic bone in the woods, because the legs just flop around and throw everything from the forest floor into the cavity.

Remember, wasting the meat of an animal is one of the biggest sins a hunter can commit. Our responsibility is to be prepared so this won't happen.

When temperatures are good, approxi-

Albert Wutsch, director of Indiana University of Pennsylvania Academy of Culinary Arts, is a certified executive chef and culinary educator who combines his mastery of cooking with his passion for the outdoors. Wutsch has been a guest speaker for many sports shows, including the Eastern Sports and Outdoor Show.

mately 32-45 degrees, hang the deer by the hind legs and skin the animal to get rapid cooling. Next, keep it out of the sunlight and it can age for two to seven days. The aging process increases flavor and tenderness. Remember that the tenderloins don't need to be aged, even if the conditions are right; they are already the tenderest muscles on the animal. The tenderloins should be removed the day the animal is killed, otherwise they will dry up and give you a poor yield.

Here are three recipes for those fresh tenderloins from *The Art of Barbecuing and Grilling Game*, by Chef Albert Wutsch.

Grilled Marinated Tenderloin with Portabello Mushrooms

Place the cleaned tenderloin along with whole portabello mushrooms into a store-bought marinade, such as Yoshidas Gourmet Sauce (can be found at Sam's Club, Costco or supermarkets). Add approximately 1/2 cup sherry wine and marinate for 30 minutes to one hour. Place on a smoking hot grill, and sear the meat and mushrooms by browning all sides. Remove from grill, slice the tenderloin thinly on a bias across the grain, and serve on top of grilled mushroom and a slice of French bread.

Grilled Venison Tenderloin Sandwich

Lightly rub the meat with olive oil. Season generously with kosher salt and fresh cracked black pepper. Place the meat onto

a smoking hot grill and sear it on all sides. This should only take approximately six minutes per side, and the meat should be served rare. Once browned, remove. Slice thinly on a bias across the grain and place on a fresh baked hard roll spread with sweet butter. Serve with grilled tomato and onion.

Cajun Spiced Venison Tenderloin

Rub the meat with olive oil, season with Cajun spice blend (found at your local supermarket), or make your own blend and store for multiple uses. Place meat on a smoking hot grill and sear by browning on all sides. Remove. Slice thinly on a bias across the grain, serve with grilled corn and roasted red peppers.

Cajun Spice Blend

- Salt 4 Tbsp
- Sugar 2 Tbsp
- Thyme, ground 2 tsp
- Onion powder 1 Tbsp
- Paprika ½ cup
- Cayenne pepper 2 Tbsp
- White pepper 1 tsp
- Coriander, ground 2 tsp
- Oregano, ground 2 tsp
- Fennel seed 2 tsp
- Cumin, ground 1 tsp

Yields: Approximately 1¼ cup, enough for six pounds of venison.

Combine all spices, rub meat with oil, then cover with spice blend. Let cure for 24 hours.

The Art of Cooking Venison can be ordered direct from Cache Creek Enterprises, PO Box 1374, Indiana, PA 15701 for \$10 plus \$2.50 shipping and handling. It can also be purchased from Bass Pro Shops, Barnes and Noble, Walden or Borders bookstores. For more information visit www.venisoncache.com. □

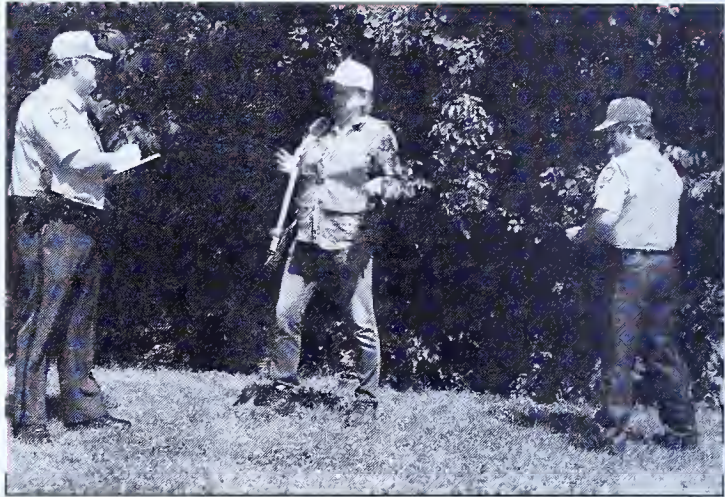
Walk in Their Shoes

By Jack Weaver

ON MAY 13, 1999, I had the privilege to attend the 11th annual candlelight vigil at the Law Enforcement Officer's Memorial in Washington D.C. The ceremony marked the inclusion of the names of two Pennsylvania game protectors and one fish warden onto the marble walls of the memorial.

The Law Enforcement Officer's Memorial is a hallowed place, a place to reflect on the price of public safety, security and our wildlife heritage. One thing separates these men and women who gave their lives from the thousands of others who have died in work related incidents: They knowingly put themselves in harm's way to protect others and to preserve the peace in our nation.

Currently more than 15,000 law enforcement officers who have been killed in the line of duty are listed on the memorial. Among them are the names of conservation officers who have given their lives to protect our nation's natural resources. There aren't many, and one must look to find them, but then compared to the number of police officers in our nation over the years, there haven't been many con-



WILDLIFE CONSERVATION OFFICERS routinely encounter people with guns and knives. Many times these people are in violation of wildlife or criminal laws. When two officers work as a team, they take up positions in front but slightly to either side of a subject.

servation officers. Statistics, however, show a higher percentage of fallen conservation officers when compared to the total number of officers for each law enforcement branch. So far we've been fortunate in Pennsylvania. Wildlife conservation officers in other states have been less so. The excellent training Pennsylvania's wildlife conservation officers receive makes all the difference.

Last fall, the Game Commission's wildlife conservation officers were criticized for not being the friendly good old boys of bygone days. Times have changed, though. Today, standing on the threshold of a new millennium, our society is different — dangerously different.

During the gobbler season last spring, a deputy wildlife conservation officer saw

two hunters crossing some posted land behind his house. The hunters were not wearing fluorescent orange, so the officer walked to the edge of the woods and called to them. Immediately, one of the men began screaming obscenities. The officer identified himself and asked to see the man's hunting license and some form of identification. The hunter refused to comply and threatened the officer. It turned out that the hunter was a turkey hunting guide who had recently been cited for violations by the local WCO and waterways conservation officer. The deputy ordered the man to remain where he was until he returned, but as he walked away, the man fired a shot in the officer's direction. The heavy shot pattern plowed into brush and trees near the officer. Fortunately, the deputy wasn't hit.

A few years ago a deputy came upon a hunter walking through the woods. It was small game season and he was not wearing orange on his chest and back as required. As the deputy approached, the individual turned and fired two shots. The first shot struck the ground in front of the startled deputy. The second passed to his side, but with several pellets striking the officer's arm and leg. The shooter then turned and fled down the hill.

One symptom of a stressed society is rage. Think about that leisurely drive home from work. You see more hand signals today than in the days before turn signals on vehicles. Nudge someone today, and they're likely to explode.

In May 1997, Luzerne County WCO Joe Wenzel responded to a summons for assistance by local police. Some turkey hunters had received permission to hunt on private property, and after hearing some birds, they were calling them in when individuals on a dirt bike and an ATV drove near one of the hunters. A shouting match ensued, and before it was over about nine shots were exchanged. The turkey hunters were not wearing blaze orange as required, they carried no identification and were

carrying unplugged shotguns loaded with illegal shotshells. The dirt bike and ATV sped away before the officers arrived. (See the "Behind the Badge" column in the August 1998 of *Game News*.)

Later, Officer Wenzel and a deputy stopped to get gas. Suddenly, a dirt bike matching the description of the one involved in the shooting came roaring by, and WCO Wenzel activated his emergency lights and gave chase. The biker ran a stop sign then disappeared. They spotted it again leaving a local bar, and after the helmetless rider spotted them, he took off. Again, Wenzel turned on his emergency lights and pursued. This time, however, the cyclist's drive chain flew off his bike, and Wenzel and his deputy apprehended him. They had no sooner handcuffed this violator than a state trooper radioed saying he had apprehended the ATV riders. One of the riders was carrying a concealed 9mm handgun. These were not kids, and all were arrested on several charges.

Do you know that more police officers are killed during routine traffic stops than when apprehending felons? That is why police have strict procedures when stopping vehicles for routine stops. At night, high beams and a spotlight are used to cover the officers' approach to a stopped vehicle, and they often approach with their hands on their holstered sidearms. These are just simple summary stops, right? No big deal. Yet, police agencies recognize the dangerous times we live in. Responsible management and officer safety demand precautions. Should we expect less for our wildlife officers? Is wildlife law enforcement different from police work? Actually it is.

Wildlife officers routinely encounter people with guns and knives. Many times these people are in violation of wildlife or criminal laws. If a police

officer knew a violator was armed, do you think he would behave differently during a traffic stop? How many times have you noticed several police cars involved in a traffic stop in highly populated areas? Yet, wildlife conservation officers routinely patrol in single units in the most remote corners of the commonwealth. If they

are injured, they may not be found for hours or days.

Another factor also comes into play. We often don't know if even our own neighbors abuse alcohol or drugs, let alone some stranger in a treestand. How about that group of campers? Or the guy using a PGC shooting range? People from all walks of life can be found in the woods nowadays. Not all of them are stable or law-abiding.

While investigating a report about shooting at night and deer being killed in the vicinity of a particular farm, a WCO and his deputy noticed a suspicious vehicle backed up to a barn with the trunk lid open and a man standing behind it. When they drove by a few minutes later the trunk lid was down and the man gone. The officers parked their vehicle in front of the car and the deputy went to check the rear bumper for deer hair or blood. Suddenly, a large man with a rifle leaped out from behind the vehicle and rushed the deputy, with the rifle's muzzle pointed at the officer's chest. The assailant was swearing and yelling at the deputy, who was so quickly and completely surprised that he had no time to do anything except back



TO HELP protect officers from assaults, they are taught certain tactical procedures. These procedures are designed to give our officers an edge, should a routine check go sour.

up and identify himself. The WCO immediately pulled his handgun and rushed to assist the deputy. A yelling match ensued, with the WCO repeatedly yelling, "conservation officer" and ordering the assailant to put down his gun.

During the incident the WCO directed his flashlight beam onto his badge and the firearm in his hand, but the assailant was wild eyed and totally focused on the deputy; he didn't seem to hear the officer's commands. After what seemed like an eternity, the assailant finally placed his rifle on the ground and backed away. The deputy grabbed the loaded .22 semi-auto rifle to place in the patrol vehicle, but before he had a chance to unload it, a man from inside the barn appeared with a high powered rifle. Reluctantly, this man showed that the rifle was unloaded and placed it on the hood of the car. While the officers were handling that situation, the first man ran to the patrol vehicle and grabbed his rifle, and the officers had to wrestle the gun from him. This man turned out to be mentally ill.

In another case, officers apprehended a young man hunting illegally. The officers temporarily secured the man's rifle in their vehicle, but while they were in the process of issuing a field acknowledgement of guilt

(an option at the time), the man's mother came out of a nearby house and began to threaten the officers. She even attempted to grab one officer's sidearm. When the officer regained control of his handgun, the enraged woman ran to the officer's vehicle and tried to remove her son's rifle, which had to be wrestled away from her. She continued screaming at the officers, grabbed one officer, then she tried to get her son's hunting knife. The officers were able to control the situation without injuring the woman and finished their work. Later that evening the woman assaulted state police troopers and a utility repairman.

To help protect our officers from such assaults, they are taught certain tactical procedures. These procedures are designed to give our officers an edge, should a routine check turn sour. One such tactic employs a "response space" of at least six feet from a subject. This gives an officer time to respond should an attack occur. Officer stance is another tactic; they are trained to approach a subject and stand with their weak foot forward in a relaxed stance that places their sidearm as far from a subject as possible. They never stand directly in front of a subject, which would place them at a distinct disadvantage should an attack occur. When two officers work as a team, they take up positions in front but slightly to either side of a subject. All of these procedures are designed to take full advantage of what is known in police circles as officer presence.

According to research conducted by the FBI, if officers appear authoritative, resolute or act professionally, offenders are reluctant to initiate an assault.

According to research conducted by the FBI, if officers appear authoritative, resolute or act professionally, offenders are reluctant to initiate an assault. Our officers are taught to treat everyone fairly and impartially, but for their safety, and in order to do their job, they must also be firm. Sportsmen must realize that when they are approached by wildlife conservation officers in the field, it is a law enforcement transaction. The officers are there to enforce wildlife laws. When an officer approaches a hunter, or any person in the outdoors, he never knows whether he may be the catalyst that pushes that individual over the edge of rationality. For his own safety and the safety of others, an officer must do as he's been trained and be extremely alert.

This fall, if you happen to be checked by a wildlife conservation officer, try to put yourself in their shoes for a few minutes. They may appear to be standoffish and brusque, but it's for a reason — a good reason. Once they consider the situation safe, however, you'll find that our officers genuinely appreciate your enthusiasm for enjoying our commonwealth's wildlife and are willing to share their knowledge of the outdoors. After all, they are hunters and trappers, too. They are there because of their love for wildlife and their dedication to its preservation. □

MOSAIC



IN HIS BOOK, *The Outermost House*, author Henry Beston writes that “The three great elemental sounds in nature are the sound of rain, the sound of wind in a primeval wood, and the sound of outer ocean on a beach. I have heard them all, and of the three elemental voices, that of ocean is the most awesome, beautiful, and varied.” Beston lived in a beach house on Cape Cod and devoted a chapter titled “The Headlong Wave” to describe the various sounds and movements of the surf. It is a remarkable treatise to one of the oldest sounds on earth, each paragraph a poetic wave that washes through the senses. Beston tells us, “The seas are the heart’s blood of the earth. Plucked up and kneaded by the sun and moon, the tides are systole and diastole of earth’s veins. The rhythm of waves beats in the sea like a pulse in living flesh.”

Besides the *thump-wump* of a beating heart, the sound of a crashing wave is one that everyone can conjure. Further, I believe that the pulse of those waters, that primal rhythm, stops not at the foaming beach, but continues across the continents and stirs even those who sit on mountaintops.

There is a fanciful theory that the earth’s atmosphere is simply a less dense form of the oceans, and all terrestrial creatures “swim” through these thinner waters. This is easily realized when walking across a broad, grassy field on a windy day or in a dense fog, as the progression is more like swimming than walking. This is especially believable in October, when leaves spiral through the mists like kelp in the churning brine, and the atmosphere is charged with the urgency of nature preparing for winter, for the arrival of colder waters.

It is a windy, invigorating day, and it takes all morning to climb from the dark abyss of a hemlock forest to the ridge. Far below, the wind cannonades and booms like wild surf through the forested vales. Successive winds, like lines of whitecaps, rush upwards, breaking at the crest of the ridge, washing over the mountaintop. Schools of steely

clouds stream by, silvery sides flashing like spawning fish. I drift slowly, floating through reefs of grapevines and laurel, then bask in the sun on a sun-drenched flat, resting for a while in the shoreless world of autumn.



THEY SAY THE mountaintop farm fell to ruin around the time of the Depression.

Several foundations and stone walls still stand, most in surprisingly good condition, but not a beam or board remains, as the mountaintop has been burned over several times. The farmhouse, a small barn, and

several outbuildings were built on the lip of the ridge. A deer trail winds between the buildings and crosses over the archway of a root cellar door. One stone stairway leads down to a room where witch hazel now grows, and another rises to a second story that is no longer there. I think how this might make a good deer stand in archery season, seated at the top of the stairs that end nowhere, while a buck forages for acorns in the kitchen. I follow the deer

trail away from the buildings and pause at a recent buck



scrape. A soup spoon has been exposed in the scrape, but another shape in the furrows catches my eye. Digging with the spoon I loosen a tiny metal statue of a dog. To my delight, it is a wire fox terrier like my wife's dog, Stormy. I put both treasures in my game bag.

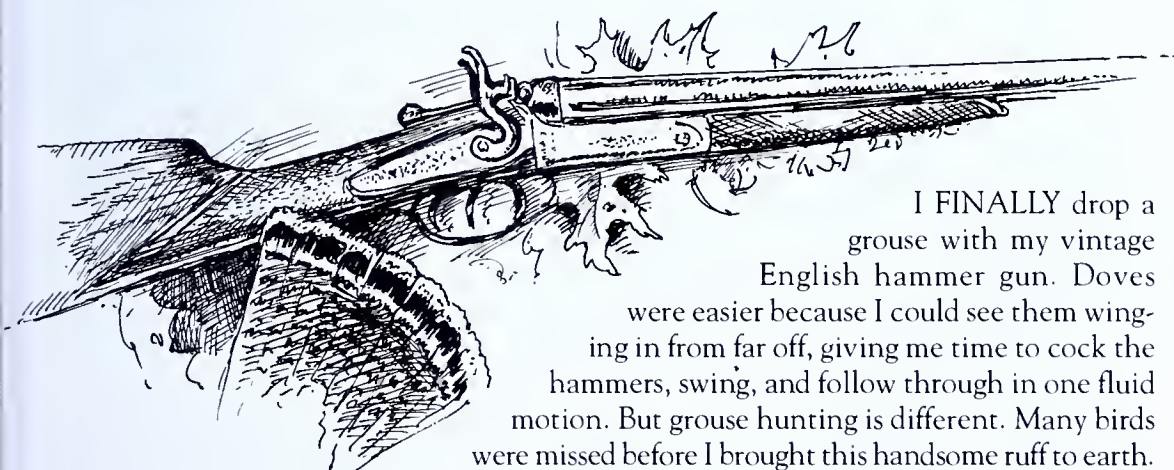
Terry puts the figurine on the windowsill with other antique miniatures of her beloved dog. I study the spoon before putting it in my junk box. On the handle is a relief design of vines and berries, a bitter-sweet vine. Perhaps the lives of the family who dared to live on the cusp of the mountain were also bittersweet.

There were all the hardships of trying to scratch out a living from the rocky soil, but also the joy of waking to the glorious view of the great river valley in October, lovely and colorful as a patchwork quilt hung on a clothesline, billowing on a fragrant breeze redolent with the perfume of fallen orchard apples and woodsmoke.

PENN'S WOODS

SKETCHBOOK

BOB SOPCHICK



I FINALLY drop a grouse with my vintage English hammer gun. Doves were easier because I could see them winging in from far off, giving me time to cock the hammers, swing, and follow through in one fluid motion. But grouse hunting is different. Many birds were missed before I brought this handsome ruff to earth.

The artist never rests — I lay the gun on the mosaic of leaves, along with shooting gloves and the bird, composing a woodland still life like a photo in a glossy shooting magazine. Savoring the image, I realize this is an amazing union of disparate elements and histories.

The 12-bore double is old, crafted by makers Joseph Lang and Son in London in 1883. It is an ingenious instrument evolved to a high level of form and function by the discriminating tastes and demands of the British sporting gentry. The grouse is of a more ancient lineage, fashioned by a greater hand, and honed to perfection by eons of predators and the elements. Subtle vermiculation on the tips of

the tail feathers resemble the wormlike patterns of hammered steel in the brown Damascus barrels. Both gun and bird share the same palette; silver grays and lemony highlights, burnt siennas, deep umbers and ivory black, a glaze of blue from the cerulean sky. The lively figuring of the stock is a continuum of the movement of autumn light and shadow on leaves. The gun is so slight in the hand (grip, in America) and graceful through the frame (receiver) that it appears vaguely serpentine. The still life is a composition of snake and bird, predator and prey, bound again by the transient medium of the hunter, through an act of what might be less hunting than performance art.



A GENTLE GLADE of hickory trees is awash in a surreal golden light, not from the sun, as it is raining, but from the intense brilliance of the foliage. The trees glow like huge paper lanterns strung on dark tree trunks. A lone turkey gobbler treads soundlessly up through the glade. He appears bronze-plated, like a sculpture come alive, prismatic feathers reflecting the yellow-curtained amphitheater. The gobbler is a study in caution, picking up nuts as he walks, but he cannot see me in the ground blind. His beard is a broad brush, and long, formidable spurs jut from legs thick and red as pokeberry stalks. He

stands on his toes, head raised high and looks over a rise, then shakes the rain from his feathers like a dog.

Another kind of light seems to emanate from the magnificent bird, illuminating the shadowy trunks as he passes, fading as he continues up the ridge. It is the incandescence of wildness, a light that burns in all wild things. It is a light we may hold in memory, but never possess, and should we be fortunate to have such a light cast upon us, it is best shared with another. I bring this one back from the yellow wood, and through these humble words and this drawing, pass it now to you.



THE TRAM ROAD and surrounding woods is dotted with the purple droppings from a vast, mixed flock of blackbirds roosting here. The rutted road is deep with crunchy leaves, but the noise from the flock is so great I cannot hear my footfalls. The deafening, nails-on-a-blackboard screeching rises to a crescendo as the flock stirs to the day on this high upland plateau. They seem to be awaiting some signal, unknown to me, to depart



the roost.

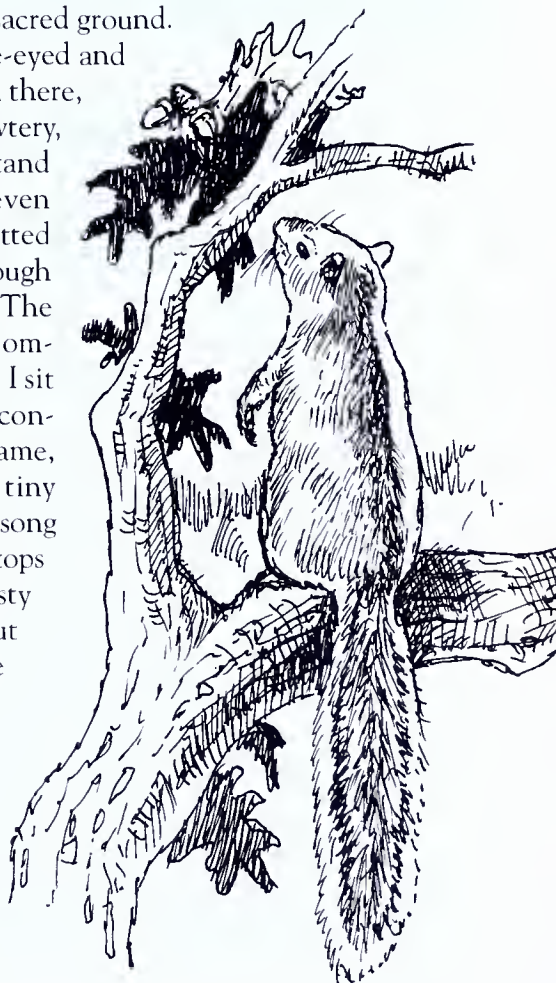
A strong, northwest
wind chills my face as sheets
of leaves corkscrew down the road.

Like musicians who are warming up and
stop at the conductor's command, the shrill
cacophony halts with not a single note more. Then, in unison, they rise in a single dark
cloud and are gone. Ten seconds later, the speeding silhouette of a Cooper's hawk glides
over the empty roost. The hawk is really moving along on the wind and was probably far
up the ridge when the birds went silent. This is testimony to the amazing eyesight of the
sentinel birds, and reveals an order present within what at first appears to be chaos.

THE HUNTING territories of one's youth are sacred ground.

I hunt one of these places when I can, still wide-eyed and
full of expectation. Sometimes I hunt for the kid there,

wearing the stiff, canvas coat and carrying a pewtery,
hand-me-down shotgun. One such place is a stand
of stately oaks near a creek. The oaks were old even
when I was young. I recognize their long knotted
boughs, and in the largest, a trunk bole deep enough
to shelter a hunter from a sudden autumn rain. The
trees are clustered, as in conference, something om-
nipotent in the strength of their collective souls. I sit
among them, like a child invited to sit among a con-
clave of elders. The music of the creek is the same,
unique to this configuration of boulders and tiny
pools, but I can't remember the lyrics of a simple song
I set to the melody so long ago. The russet treetops
are ablaze with sunlight, while below in the frosty
shadows I shiver slightly. A squirrel ventures out
on a high limb, and as the ivory bead of that same
gray gun covers it, the world stops spinning as
time slips a notch. I hold the squirrel up by its
tail and the oaks nod their approval in the first
breeze of the day. I leave the hollow with a
youthful spring in my step. From a distance
the oaks murmur, perhaps singing my forgot-
ten lyrics, known now only to them and the
young squirrel hunter I leave behind.





Trapping Black Horse Run

By Charles E. Travis, Jr

ONE MORNING while fishing in Black Horse Run, a spring-fed creek that flowed through our meadow, I noticed the water being muddied by something under the bank. When the water cleared I saw a hole in the bank. It had to be a den for some animal, I thought. That was in 1923, and I was nine years old.

That evening I talked to Bobby Cardwell, a taxidermist who was visiting my parents. He said that muskrats were probably living in the holes under the bank. He also told me what

kind of signs to look for, cut grass and other vegetation in the water and tracks in the mud along the bank. Then he even gave me a couple of *Hunter-Trader-Trapper* magazines and said I would learn a lot from them, and that when the season opened I could catch some muskrats and he would show me how to handle the fur. In the meantime he gave me six Blake & Lamb traps and showed me how to set them.

The creek that went through our meadow also flowed through five other farms, one of which contained 10 acres of timber. There were many good sites to set



ONE MORNING while checking the muskrat traps I saw fresh coon tracks on a small sand bar out from an overhanging bank. I dug a hole in the bank at the water level, slanting it upward for about a foot, then placed my bait and set a trap.

a trap, both along the water and throughout the timber. The creek wound its way for about three miles west before it flowed into Brandywine Creek at what was known as Jefferies Ford. In the bygone days of the Revolutionary War, British troops crossed there on their way to engage in the battle of the Brandywine about two miles to the south.

I had no trouble getting permission to trap from all five of the farm owners. I had shot many woodchucks out of their alfalfa, soy beans and timothy fields with my .22 rifle. (The minimum age for hunting, 12, was enacted in 1937.) The woodchuck den holes were a danger to the legs of the horses pulling the mowers, and the mounds at the dens, huge at times, were hard on mower blades. I had a good deal going with the landowners. The farmers gave me all the .22 cartridges I could use, and a fellow who owned a fox farm paid me 50 cents for each chuck I shot. Best of all, he came to my place to pick them up.

The farm with the woodlot had a split rail fence that was pretty old and covered with honeysuckle vines and blackberry

canes. This formed a sort of tunnel, and during snows it was almost dry inside, providing a corridor for all kinds of furbearers, especially weasels. At that time the Game Commission paid \$2 bounty on them. They would split the face of the pelt from the tip of the nose to between the ears and return the pelt so it could be sold to a furbuyer for about \$1 each.

Jarvis McCannon was the game protector in my area and he took care of the paper work for the bounty payment. A great old fellow with snow white hair and a quiet voice, he was a good public relations man for the Game Commission. He introduced

me to the program of hatching pheasant eggs under guinea and bantam hens for the Game Commission and later releasing the birds on the farms that I trapped. All of the landowners were pleased with that.

In those days trappers were allowed to set traps in burrows, but I found that using bait was much more productive. I used fish heads, which I obtained from a store in town. Instead of building cubbies that took a lot of time and were also an attraction to a trap or fur thief, I used, unknowingly but with much success, what is known today as a dirt hole set. I never even dreamed that in later years this would be used by thousands of trappers all over the country, especially for canines. The lures I used in those early days, and the first couple of dozen traps I bought, came from Sears and Roebuck.

I had spent lots of time sizing things up while on the farms collecting woodchucks, and had figured out where to place sets for the furbearers other than muskrats. School days would call for

the short trapline, but the weekends I could run the trapline all the way to the Brandywine. Lucky for me the 10-acre wooded area was only a short distance from my home and would be on the daily schedule.

Instead of using a regular steel trap for weasels, I had a different idea. I bought a dozen wooden rat traps made by Woodstream, drilled a hole halfway between where the trigger was fastened at the base and the coil spring that activated the jaw. This was to accommodate a good size nail. For bait I used English sparrows fastened securely with a piece of fine wire to the bait holder.

Plenty of sparrows were available around our dairy barn. My father didn't want me using regular bullets around the dairy cows, so to get them I used a .22 rimfire cartridge loaded with number 12 shot.

I hung the trap upside down (bait down) from a fence post about a foot off the ground. This really worked fine. Over the years I caught an awful lot of weasels with this outfit. Of course, setting traps like that today, with bait visible from above, is illegal.

One morning while checking the muskrat traps I saw fresh coon tracks on a small sand bar out from an overhanging bank. I dug a hole in the bank at the water level, slanting it upward for about a foot. I used a fish head for bait, then set a trap at the entrance,

in about two inches of water, and fastened it to a slide wire that would take the trap and coon to deep water. Two days later I had a big boar coon. Before the season was over I caught several nice coons from this creek using the same set. In those days coons were scarce in this area, and a large prime pelt brought a nice return.

The old rail fence where I set the "rat traps" for weasels was productive for other animals as well. This fence ran about 200 yards along the edge of the woods, so I set a few regular traps in between the weasel traps and took several skunks, opossums and a couple of coon. My mother was pleased that I was doing so well, but she wasn't too thrilled with the odor of some of the skunks. I took care of the fur in the cellar, but not the skunks; they had to be done outside the house — way outside.

One year, late in the season, I woke up to find a good tracking snow. I followed skunk tracks that ended up going into a den just a short distance from the creek. I set a Gibbs 2-trigger trap on the trail 10 feet from the entrance and attached the chain to a long pole. Seven skunks were taken in as many days at this location. Several were graded as black because of the small amount of white fur on the pelt, and that made them more valuable. There may have been more skunks in that den, but the season came to an end on the day I caught the seventh.

That first year trapping was a very enjoyable learning experience, and I had many successful seasons after. □

COVER PAINTING BY KEN HUNTER

THIS MONTH'S cover depicts Pennsylvania's state bird, and a favorite game bird of Keystone State hunters. In fact, ruffed grouse hunters on the average are a dedicated bunch — bordering on obsession for many. Grouse hunting is not for the faint of heart and those accustomed to a sedentary lifestyle, however, as the birds tend to frequent some of the nastiest cover in the uplands. Trudging up and down steep hillsides, through pine thickets, crabapple stands and grapevine and green-brier tangles is hard work. Then, when flushed, grouse have a unique knack for swerving left or right, placing a tree trunk between itself and a "well-placed" load of 7¹/₂s. No matter, though, it's that much more satisfying when you do connect.



FIELD NOTES



Long, Hard Trail

LANCASTER — Field Notes originate with officers noticing or being told about interesting happenings in our forests and fields. The story is then jotted down and sent to the region office. There they are reviewed by the Information & Education Supervisor, edited and then sent, in many cases by e-mail, to Harrisburg, where they are edited again by *Game News* staff. After that, we officers wait to read *Game News* just like you, to see if our Field Note made the cut.

— WCO LINDA L. SWANK, KIRKWOOD

Narrow Escape

TRAINING SCHOOL — While finishing our class run one morning, we spooked a rabbit that was nearly run over by a car in the parking lot. For a moment we all wondered who would handle our first roadkill.

— TRAINEE GARY M. FUJAK, HARRISBURG

Adverse Effect

BLAIR — My deputies and I helped the Fish and Boat Commission with four major chemical spills last summer. Many people assume that only fish are impacted by such spills, but raccoons, beavers, muskrats, mink, waterfowl and many other animals are also affected. Because water levels were so depleted, animals congregated in areas that still held some water. Keep this in mind, and be sure to dispose of all chemicals properly.

— WCO ALBERT G. ZELLNER,
ROARING SPRING

Foul Ball

TRAINING SCHOOL — During speech class, while giving impromptu talks on birds, Trainee Harold Malehorn asked if anyone knew what type of habitat cardinals preferred. Trainee William Williams quickly blurted out, "St. Louis." It wasn't the correct answer, but everyone in class thought it was a "hit."

— TRAINEE ROBERT A. EINODSHOFER,
HARRISBURG

Good News

WESTMORELAND — Many people told me about seeing pheasant broods last summer. I even had reports of pheasants feeding at bird feeders in backyards. The stocking of hens and wilder roosters might be paying off.

— WCO RODNEY S. ANSELL, MT. PLEASANT

Right at Fingertips

McKEAN — My neighbor fell asleep on his front porch while reading his *Game News*. His dog was lying beside him, and when a skunk wandered onto the porch, the dog surprised it, causing it to spray both my neighbor and his dog. It just so happened that the *Game News* contained a recipe to remedy skunk odor. He tried the remedy, and to his amazement, the skunk odor was gone immediately.

— WCO THOMAS M. SABOLCIK,
PORT ALLEGHENY





Easy Pickins

SUSQUEHANNA — While picking blueberries Nancy Decker from Hallstead filled her basket, placed it on the ground and continued picking. She soon noticed a rabbit following, eating the berries from the basket.

— WCO DONALD R. BURCHELL, NEW MILFORD

Too Much of a Good Thing?

Here in the southwest I often hear, "There are too many turkeys in Greene and Washington counties." We turkey hunters have a word for this — paradise.

— LMO GEORGE MILLER, PITTSBURGH

No Place Like Home

SOMERSET — Former deputy Brian Keyser stopped by while visiting from Lake County, Ohio, where he now serves as a wildlife conservation officer for the Ohio Department of Natural Resources. Brian had just paid \$101 for his Pennsylvania nonresident hunting license, and he said he was getting a good deal. He had paid \$90 for his Ohio resident hunting license. In Ohio the general resident hunting license costs \$15 and is good for small game only. To hunt deer and turkeys he had to purchase a deer tag and two turkey tags at \$20 each. Brian also hunts waterfowl, so he paid \$15 for a mandatory state waterfowl stamp.

— WCO SCOTT W. TOMLINSON, JENNERSTOWN

Ouch!

MONROE — A vehicle inflicted minor injuries to a small bear cub, so the occupants placed the cub in the backseat and delivered it to a nearby state police barracks. WCO Tom Swiech arrived and gave the couple a stern warning about the danger of handling a tiny bear cub when the mother bear was sure to be nearby. What WCO Swiech failed to mention were the injuries a 20-pound cub can inflict. Isn't that right, Tom?

— WCO RANDY L. SHOUP, SWIFTWATER

Chivalry

Blair County Food & Cover Corps foreman Harvey Fouse noticed a red-tailed hawk pounce on a hen pheasant in a field then watched as a cock pheasant erupted from a nearby hedgerow and attacked the hawk. A flock of crows soon joined the fracas and, overwhelmed, the hawk took flight, allowing the hen to escape.

— LMO STEPHEN A. KLEINER, ALTOONA



Screeching Halt

TRAINING SCHOOL — Trainee Eric Horsh was calling the cadence for our run near the township building one morning when all of a sudden we heard a loud bang. Eric didn't damage the garbage dumpster, but our cadence stopped in a hurry. I wonder if Eric's imprint is still on the dumpster.

— TRAINEE BRIAN E. WITHERITE, HARRISBURG

Proud

BRADFORD — The Youth Hunter Education Challenge national competition was held at Mansfield this year. The local people were impressed with how well the young shooters behaved. One man told me that he had never heard so many “yes, sirs” and “thanks” his entire life. While the competition demonstrated that responsible youngsters can handle firearms responsibly, the event didn’t get the national press coverage given to non-responsible people handling firearms in non-responsible ways. A tip of the old Stetson to youngsters from all over North America who proved once again that guns aren’t the problem, and that we do have decent children.

— WCO WILLIAM A. BOWER, TROY

Close to Home

PHILADELPHIA — I knew I would get lots of nuisance wildlife calls here in Philadelphia. There are calls concerning turkeys, coyotes, foxes, short-eared owls and peregrine falcons. Even I was surprised, however, when I got a call to assist neighboring WCO Rich Macklem in lower Bucks County with a marauding bear in Southampton Township, bordering Philadelphia County. After several hours, and with the help of local police from several townships, we captured the bear and transported it to more suitable habitat.

— WCO JERROLD CZECH, PHILADELPHIA

One in the Same

BEDFORD — Deputy Watson stepped outside his home one night and noticed a vehicle in one of his fields whose occupants were spotlighting. When one of them shot a deer, Deputy Watson jumped in his vehicle and gave chase for more than 20 miles. After radioing me, we were able to stop the violators. The driver told us he fled because he didn’t know if his pursuer was the landowner or the game warden. I responded, “You’re right; he’s both.”

— WCO TIMOTHY C. FLANIGAN, BEDFORD

Overflow

TRAINING SCHOOL — After four months in school, I now realize why many WCOs say they live and work out of their vehicles. With all the reference material and gear issued, there’s no longer any space to live in their homes.

— TRAINEE HAROLD MALEHORN, HARRISBURG



Just a Reminder

MIFFLIN — When checking your hunting gear, be sure to replace old, faded fluorescent orange clothing.

— WCO JEFFREY G. MOCK, LEWISTOWN

Stone Tired

TRAINING SCHOOL — The following morning after a long day of canoeing on the Susquehanna River, I found a river rock under my pillow, compliments of one of my “thoughtful” classmates. Boy, I guess I was pretty tired that night.

— TRAINEE VICTOR ROSA, HARRISBURG

Didn’t Learn that in School

CHESTER — While explaining how to use a jab pole when tranquilizing nuisance animals, someone asked what I would do if an animal was out of reach of the pole. Before I could answer, a young man shouted out, “Throw it like a spear.”

— WCO KEITH W. MULLIN, OXFORD

No Kidding

INDIANA — WES Joe Stefko, intern Mark Gritzer and I had to seize an African lion from an individual who didn't have an adequate enclosure to keep one. To transport the animal, we used a bear trap, and while stopped at a traffic light a man in the vehicle next to us yelled, "Is that the bear people have been seeing on the hill above town?" I yelled back, "No, we're hauling a lion." I think the man thought I was being a wise guy. We took the lion to a wildlife sanctuary, where it was held until the owner complied with enclosure regulations.

— WCO PATRICK SNICKLES, MARION CENTER



Good Intentions

ERIE — Last summer a woman reported two men carrying a deer they had shot in a field near her home. After investigating without finding any signs of a deer being killed. I told the woman to call me if she saw the two men again. The lady called back later and said she saw the men on three other occasions with three more deer. We staked out the area and finally got to the bottom of the situation. It seems the two men, who had permission, were practicing with their archery gear, and had been toting their life-size deer target back and forth from the field.

— WCO MICHAEL D. WOJTECKI, MCKEAN

Not a Bad Addiction

DAUPHIN — I look forward to *Game News* as much as the next person, and when I get my copy I can't wait to read it. Sometimes I read it in the parking lot at the post office; other times I read it while waiting for an appointment. Recently, I had some spare time before a sportsmen's club meeting, so I drove to a secluded spot near the clubhouse and started to read. Awhile later, a man in a truck stopped to ask if I needed help. I quickly placed the *Game News* out of sight and said that everything was fine. When I arrived for the meeting the helpful gentleman was standing outside the club. He asked why I had been parked on the back road, so I had to reveal my addiction to *Game News*. "You're not the only one with that problem," the man quickly said.

— WCO GUY HANSEN, MIDDLETOWN

Seeing is Believing

Matt Cessna told me that he had been regularly seeing 28 bucks in a 12-acre field, and figuring I'd be skeptical, he volunteered to show me. At dusk one evening, I watched in amazement as bucks walking single-file began to enter the field. After the 16th buck had entered the field — with other deer behind I couldn't identify — a doe caught our scent and snorted, spooking all the deer.

— LMO DAVID R. KOPPENHAVER, EVERETT

Vulnerable

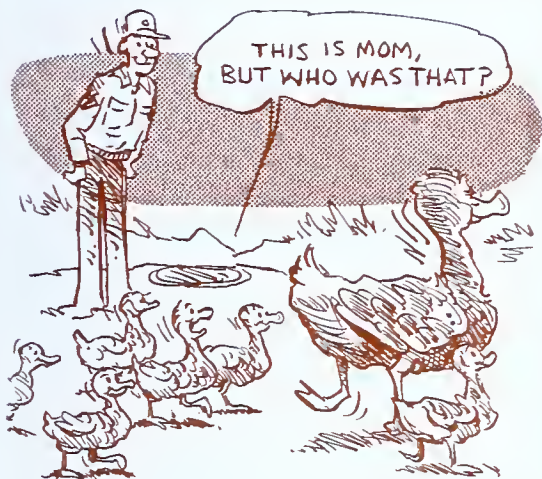
DELAWARE — WCOs fresh from the training school are assigned mentors, experienced officers who guide, advise and assist us for the first year in our new assignments. My mentor is WCO Keith Mullin, and he does a wonderful job, but there is a catch. He sees me as a "Field Note" just waiting to happen. I'm sure of this because he laughs and utters "Field Note" nearly every time after we're done speaking.

— WCO ROSE LUCIANE, EDMONT

Banner Year

BEDFORD — One evening in July I noticed a group of five bucks, and after driving a few miles I saw three more bucks. There wasn't a spike among either group and several were real trophies.

— WCO JIM TROMBETTO, NEW ENTERPRISE



Pied Piper

ALLEGHENY — I received a call about some ducklings being stuck in a storm drain. Despite the laughter from several onlookers, I knelt by the drain opening and began to quack. Soon, seven little ducklings appeared. With everyone's help we removed them from the drain, and then, as if on cue, the mother mallard appeared, and the ducklings formed a single-file line and waddled to her.

— WCO RODNEY BIMBER, CLINTON

Times have Changed

BRADFORD — My neighboring WCOs rib me incessantly because after 10 years here I've captured only three nuisance bears. This year, however, the worm has turned. One week in June, I captured three bears, then during July and August I caught two more. My neighboring officers, on the other hand, didn't catch any. Pedal faster, boys; you've got some catchin' up to do.

— WCO RICHARD P. LARNERD,
WARREN CENTER

Appreciated

Members of Somerset County Pheasants Forever Chapter 603 donated a new Agco-Allis diesel tractor to use for wildlife habitat projects. The tractor was put to use immediately, to mow border strips around warm season grass fields on SGL 50. This year alone, the chapter has been involved with the Game Commission in planting more than 250 acres of warm season grasses.

— LMO CLIFFORD GUINDON, BOSWELL

Pole Vault

Last year a pair of ospreys built a nest on a pole that had been dropped from a helicopter quite a few years ago, during the eagle restoration project at Shohola. This year, they raised two offspring in the nest.

— LMO JOHN C. SHUTKUSKI, DAMASCUS

Tough One

GREENE — Even after nine months of training school I wasn't prepared for my first question while doing my first elementary school program. After explaining predator-prey relationships and the links in a food chain, one eager first grader asked, "What does bigfoot eat?"

— WCO RODNEY BURNS, WAYNESBURG

Good Old Days

Farm Game Manager Brian Bollinger says he saw more pheasant broods last spring in Adams and Cumberland counties than he has in a long time. It seems farmers here didn't mow hay as early as in past years.

— LMO STEVE SPANGLER, EAST BERLIN

Optimistic

WYOMING — I've had more reports of ring-necked pheasants being sighted than I can remember in a long time. My wife, Marianne, spotted a hen with a brood crossing our backyard, and I heard pheasants crowing last spring. I wonder what's happening in the prime pheasant range?

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

1999-2000 waterfowl seasons and bag limits

A REOPENING of the fall Canada goose season in eastern Pennsylvania and a continuation of liberal duck seasons and bag limits throughout the state highlight the 1999-2000 waterfowl seasons and bag limits.

According to PGC waterfowl biologist John Dunn, hunters throughout eastern Pennsylvania will have a split, 15-day season for Atlantic Population Canada geese. This will mark a return to fall hunting of migratory Canada geese in this area of the state for the first time since 1994. The season will be Nov. 20-27 and Dec. 31-Jan 8, with a daily limit of one.

"The trigger allowing this season on Atlantic Population geese is a minimum of 60,000 breeding pairs of migratory geese, and that was exceeded this year," explained Dunn. "In addition, AP geese had an excellent breeding season. That we were able to re-

store this season demonstrates why good population estimates and the reporting of band information by hunters can be so critical."

Waterfowl hunters will find later goose seasons in Butler, Crawford and Mercer counties this year. In addition, the waterfowl season package once again includes expanded hunting opportunities for resident Canada geese in early and late seasons. (The early season ran in September.)

The 1999-2000 duck seasons include 60 hunting days and a daily limit of six birds, an increase of one. "Breeding populations of most ducks are at record highs," said Dunn. "Liberal seasons reflect these good times."

Mallards and wood ducks account for about 90 percent of the total harvest by Pennsylvania's 42,000 waterfowl hunters. This year's breeding population of mallards increased by 12

1999 MIGRATORY BIRD SEASONS

<u>Species</u>	<u>Open</u>	<u>Close</u>	<u>Daily Limit</u>	<u>Field Possession</u>
Doves	Sept. 1	Oct. 5	12	24
	Oct. 30	Nov. 27	12	24
	Dec. 27	Jan. 1	12	24
Woodcock*	Oct. 23	Nov. 6	3	6
Rails (Sora and Virginia)**	Sept. 1	Nov. 9	25***	25***
Moorhens, Gallinules	Sept. 1	Nov. 9	15	30
Common Snipe (Wilson's)	Oct. 23	Nov. 27	8	16

* Woodcock season temporarily closed in Crawford County, on SGL 69 and Erie National Wildlife Refuge.

** No open seasons on other rails.

*** Singly or aggregate combinations.

percent over 1998. Wood duck breeding pairs are up five percent.

Dunn did add a cautionary note regarding drought conditions in Pennsylvania and other Middle Atlantic states. "If these conditions become more severe heading into fall and winter, fewer wetlands will be available to waterfowl, forcing migrating birds to bypass our state."

While the daily bag limit of ducks has been increased to six, waterfowlers are advised that the daily limit on scaup has been reduced from four to three and that season and bag limit restrictions remain in place for black ducks, one a day.

Report Banded Birds

Waterfowl hunters can use a toll-free number, 1-800-327-BAND, to

report banded ducks and geese they harvest. In addition to the band number, callers will be asked to provide information on where, when and what species of waterfowl were killed. This information is crucial to the successful management of waterfowl.

Licenses Required

In addition to a regular Pennsylvania hunting license, persons 16 and older must have a Federal Duck Stamp signed in ink across its face and a Migratory Game Bird License (HIP card); persons 12 through 15 must have a Migratory Game Bird License.

See pages 42-44 for complete waterfowl hunting information.

Waterfowl seasons and maps may also be found on the Game Commission website, www.pgc.state.pa.us.

Baiting law reminder

WITH THE migratory bird hunting seasons in full swing, hunters are encouraged to become familiar with recently changed federal regulations and their impact on hunting in Pennsylvania. Some of the federal changes related to baiting of waterfowl and other migratory birds might not apply to Pennsylvania.

"Hunters are responsible for ensuring that no bait is present before they begin hunting," PGC Executive Director Vern Ross pointed out. "They should thoroughly inspect the field or marsh for bait, question landowners who have given hunters permission to be on their land about bait, and take other reasonable steps to verify the legality of their hunt."

Ross cautioned hunters that some of the federal changes rely on "normal agricultural practices" as defined by the U.S. Department of Agriculture. He stressed that some of those prac-

tices that may be "normal" for certain parts of the United States may not be normal for Pennsylvania. For example, the practices of top seeding or bush-hogging fields are not necessarily a normal agricultural practice in Pennsylvania.

Mike Dubiach, assistant director of the Game Commission Bureau of Law Enforcement, noted that Pennsylvania requires a 30-day time period between the removal of bait and any residue and the first day the area may be legally hunted. This supercedes the federal regulation requiring only 10 days between clean up and lawful hunting.

"Hunting is an important part of Pennsylvania's heritage and economy," Ross said. "To ensure that more hunters are able to enjoy this recreational activity, we need to abide by the standards of 'fair chase' and continue to restrict the illegal practice of baiting."

Alt to head new deer management division

TO ELEVATE its focus on deer management, the Game Commission has created a Deer Management Section within the Research Division of the Commission's Bureau of Wildlife Management, and Dr. Gary Alt has been named as head of the new section.

"We're pleased and excited to unveil the Game Commission's next step in improving its deer management program," Ross said in making the announcement. "This new section elevates the Game Commission's focus on the management of white-tailed deer; they are our most important resource and deserve this level of attention."

"We also are honored to announce that Dr. Gary Alt, the commission's world-renowned black bear biologist, has accepted the appointment to head this very important new section. He brings with him the credibility for managing Pennsylvania's bear population and years of educational and practical experience with deer populations."

"This is the greatest career challenge I could ever hope for," Alt said. "Deer management is one of the most important jobs assigned to the Game Commission. It influences every Pennsylvanian and impacts virtually every wildlife species."

"I look forward to traveling across the commonwealth to meet with the various organizations interested in or affected by deer. We will work to build consensus among deer management stakeholders so that Pennsylvania can move into the 21st century with a solid, positive deer management program in place."

Alt has extensive education training in the management of deer and other wildlife, including courses on animal behavior, population and forest ecology, reproductive physiology, wildlife policy and range management. He earned his doctorate in Forest Resources Science from West Virginia University. Additionally, Alt earned a master's degree in Wildlife Management from Penn State University, a bachelor's degree in Wildlife Science from Utah State University and an associate's degree in Wildlife Technology from Penn State University's DuBois Campus.

Besides being an avid deer hunter for 36 years, Alt worked at the Commission's deer check stations in the late 1970s and has annually collected deer data at meat processors for the past 22 years. He also filmed and photographed deer in the wild and in captivity for more than 10 years, to organize a "Natural History of White-Tailed Deer" slide lecture which he has presented at many sports shows and public events.

Although the Game Commission has successfully managed the state's deer herd for decades, it also has endured recent criticisms from those who are dissatisfied with the program. Many hunters and wildlife enthusiasts believe there are too few deer, while those who live in suburban areas and those employed as farmers or foresters believe the Commission needs to better control the deer herd.

Ross noted that in this new position Alt will work with Game Commission members, legislators and the Commission's Deer Management

Working Group to reach consensus on deer management.

"Through his efforts with the state's bear management program over the past three decades, Dr. Alt has demonstrated the ability to work with various groups to reach consensus," Ross said. He also noted that Dr. George Kelly and Bret Wallingford, commission deer biologists, will work with Alt in moving the commission's deer management program forward.

"Gary will work with George and Bret, who possess a wealth of knowledge about the state's deer population, and he will rely on their talents and experience," Ross said.

Cal DuBrock, director of the commission's Bureau of Wildlife Management, praised the selection of Alt and noted that Kelly and Wallingford will help round out a "team of talented and top-rate biologists."

"Bret and George have an excellent grasp of our current deer management program as well as the issues surrounding deer management," DuBrock said. "Both have worked tirelessly to bolster public support and knowledge of deer management. I believe that this team of Alt, Kelly and Wallingford will help make Pennsylvania's deer management program the envy of the nation."

NASCAR driver WARD BURTON, left, was recently presented a copy of the Game Commission's new elk video and a SPORT hat by Commissioner George Venesky, Mountaintop, right. Burton an avid hunter and trapper, founded the Ward Burton Wildlife Foundation, through which lands are acquired for public hunting, fishing and trapping. Venesky made the presentation at the Pennsylvania 500, held at the Pocono International Raceway at Long Pond.



PGC pistol champions crowned

TERRY WILLS of Lycoming County and Coy D. Hill, Fulton County, are the individual champions of the 1999 Pennsylvania Game Commission Revolver Championships held in August.

Wills shot a 495-29x score to lead salaried wildlife conservation officers, displacing 1998 champion David

Carlini of Clearfield County. Carlini finished as runnerup this year with a score of 488-27x. Wills' score was a record for WCOs, bettering the former standard of 491-29x shot by Carlini in 1998. Both Wills and Carlini have the distinction of claiming PGC titles as salaried officers and deputies. WCO

Steven Bernardi of Snyder County placed third for the second straight year. His score was 488-24x.

Hill repeated as champion in the deputy wildlife conservation officer category, with a score of 487-32x. He also won the title in 1996. Steve Frye of Clearfield County, was second in DWCO competition with a score of 479-26x, while Anthony Carbaugh, Fulton County, was third at 477-27x.

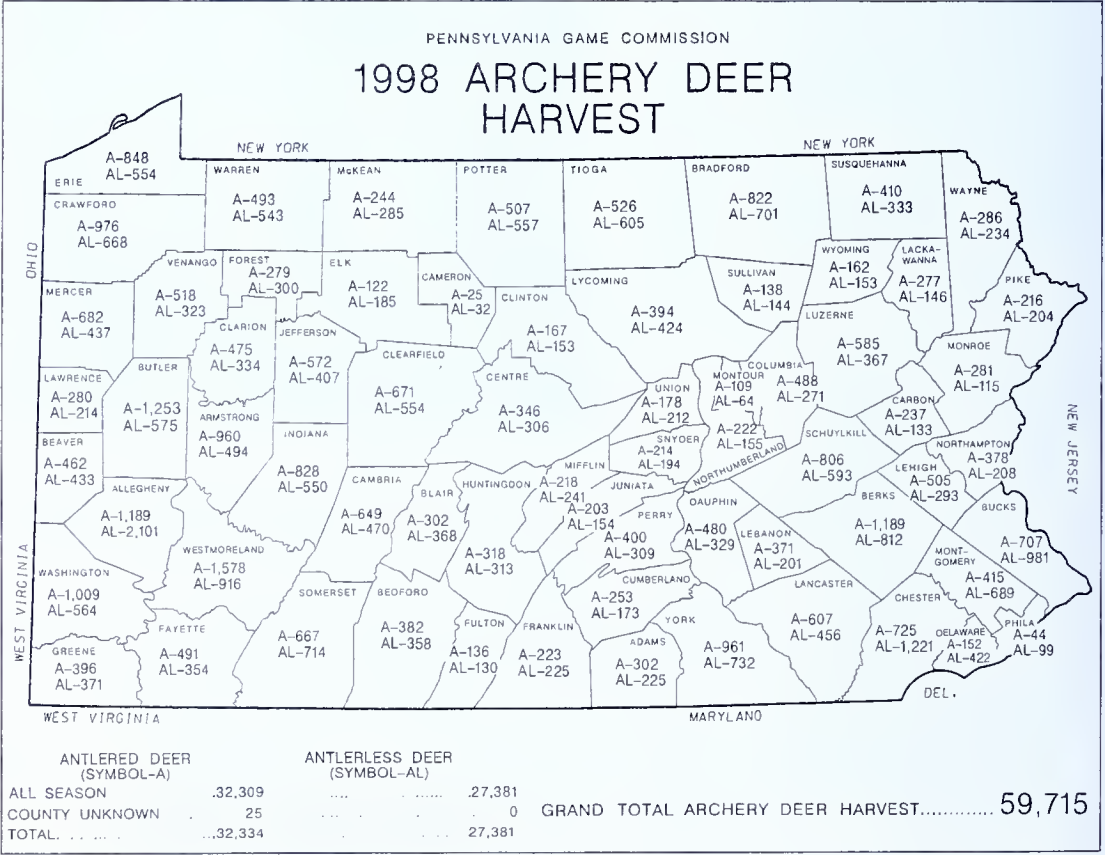
While deputy WCOs and salaried officers compete in separate individual categories, it is important to note that annual firearms training and qualification for all Game Commission law enforcement officers is conducted under identical, strict guidelines.

Officers from Fulton County continued their domination of four-man

team competition. Steve Leiendecker, Carbaugh, Coy Hill and Robert Strait combined for a winning score of 1,874-99x. Fulton County officers have won this title every year since 1994. Centre County officers claimed second place as Frank B. Scott, IV, William L. Sipple, Jr., Mike Ondik and Joseph Wiker turned in a score of 1,803-59x. Roland Trombetta, Thomas Lewis, Tim Williams and Mark White earned third place for their Bedford County team with a score of 1,789-41x.

In two-man team competition Chris Ivicic and Steve Frye of Clearfield County took the title with a score of 954-39x. Carlini and Dennis Gill, Clearfield County, placed second at 940-37x, while Wills and Jim Neylon, Jr., were third at 923-44x.

ACCORDING to deer harvest report cards, 8.5 percent of the harvest occurred on the opening day, about 4 percent on each of the following Saturdays, and 5.6 percent on the final Saturday.



Pennsylvanians capture national YHEC titles

AFTER CAPTURING many medals at the NRA's International Youth Hunter Education Challenge four years running in Raton, New Mexico, home cooking only added to the championship take by members of the Keystone State's 1999 YHEC contingent. Pennsylvanians captured three of the four major titles in the recent competition staged by NRA at the Tioga Hammond Recreation Area near Mansfield. Just over 300 participants from 17 states and Saskatchewan competed in rifle, shotgun, muzzleloader and archery shooting events, and in wildlife identification, orienteering, a written hunter responsibility test and a hunter safety trail.

Keystone State competitors won team titles in both junior and senior divisions, while individual senior top gun honors went to Garth Babcock, 17, of Rome. Garth, a member of the 1998 Pennsylvania senior team, which also swept International YHEC honors, scored 1,811 of a possible 2,400,

including a perfect 300 in the rifle event. Jeremy Castle of Columbia Crossroads finished third in senior top gun standings with a score of 1,726.

Members of the championship senior team include Babcock, Castle, David Chilson, Todd Puderbaugh and Tim Reichart. Their coach is Blair Babcock. A team from Louisiana finished second.

Pennsylvania's winning junior squad is coached by David Hafer and includes Garth's younger brother, Devon Babcock, Adam Green, Edmund Rosenberger, Theodore Them and Lance Wilt. The younger Babcock placed third overall in junior division top gun final standings. A Maryland team placed second.

Keystone State teams were selected through Pennsylvania YHEC competition held earlier this summer at the Game Commission's Scotia Range in Centre County. The Game Commission has supported the NRA's YHEC program for well over a decade.

THE EAST OHIO-NORTHWESTERN PENNSYLVANIA Chapter of Safari Club International recently presented \$5,000 to the Game Commission for habitat management in the Northwest Region. Shown, left to right, at the presentation ceremony are Larry Harshaw, PGC Northwest Region Director; Mike Drewnowski, SCI Region 18 Representative; George Smith, Jr., President of the SCI chapter; and Keith Harbaugh, PGC Land Management Supervisor for the Northwest Region. The donation will be used for streambank fencing, wetlands restoration and reseeding projects.



State Game Lands tours this month

THE GAME COMMISSION will be hosting several state game lands tours this month, giving people the rare opportunity to visit areas or drive roads normally closed to the public, and see what the agency is doing to manage wildlife. Game lands tours can also be a great way to enjoy the fall foliage at its finest.

On Sunday, October 3

- SGL 290, known as Haldeman's Island. The approximately 3-mile self-guided walking tour features waterfowl management practices and a bald eagle nest site. Also, at 10 a.m. and 1 p.m., waterfowl banding demonstrations will be given. Arrive approximately one hour early, to allow time to reach the demonstration site. The tour begins at a game lands parking area along Rts 11 & 15, just north of Route 322. Hours are from 9 a.m. to 3 p.m.

On Sunday, October 10

- SGL 44, in Elk County. The tour will start at the PGC food & cover corps headquarters 8 miles south of Ridgway on Rt. 949. The tour starts

at 1 p.m. and will last until 5 p.m. During the tour, PGC officers will accompany visitors through different areas of the game lands, where habitat improvement projects can be seen and discussed. There will also be stops at some deer management sites. Visitors will use their own vehicles and some walking will be involved.

On Sunday, October 17

- SGLs 110 and 211 will be opened for vehicle tours. SGL 211, always a popular tour, was featured in the February *Game News*, in "Anton's Wilderness" in which author and illustrator Jim Rice covered the area's rich history. The tours on these two game lands will run from 9 a.m. to 3 p.m., and the SGL 211 tour will begin at the west end of the valley.

- A tour of SGL 93 in Clearfield County, beginning at 1 p.m. Participants should meet at the Sabula Fire Hall parking lot on Route 255, 2.5 miles north of Exit 17 of I-80. Four-wheel-drive vehicles are recommended, but not required; agency

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187
Southwest — 724-238-9523
Northcentral — 570-398-4744

Southcentral — 814-643-1831
Northeast — 570-675-1143
Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

transportation will be available.

- SGL 252 in Lycoming and Union counties, noon to 4 p.m. Attendees may drive through on a self-guided tour or go with PGC personnel on a guided tour. Guided tours will begin on the hour.

- SGL 37 in Tioga County, from 10 a.m. to 2 p.m. The tour will begin at the Stevenhouse Run parking lot. This self-guided tour will feature several manned exhibits along the route. Take Route 287 to U.S. Army Corps of Engineers Ives Run Campground on

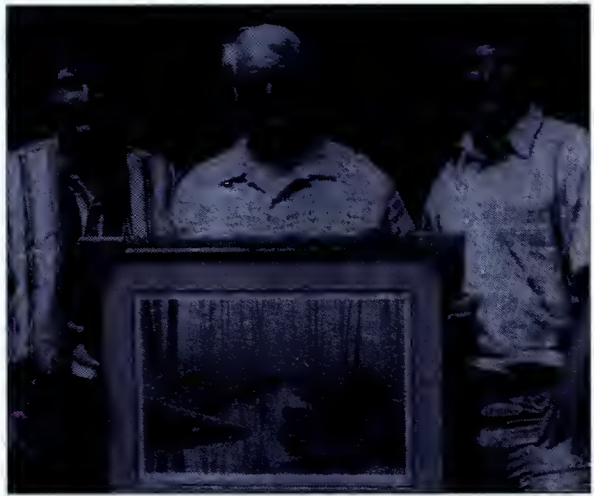
Tioga/Hammond Lake and then follow signs to SGL 37.

- SGL 26 in Cambria, Blair and Bedford counties; gates to Blue Knob will be open for a vehicle tour from noon to 4 p.m. Traffic will be one way, from Route 869 between Beaverdale and Pavia. The 7-mile tour will take about 45 minutes and will feature beautiful scenery. Interesting plants will be identified and PGC employees will be stationed to answer questions.

Watch local newspapers for other tours offered in your area.

FOR THE outstanding footage he provided for "Pennsylvania Elk: Reclaiming the Alleghenies," PGC Food & Cover Corps foreman Billie Cromwell was presented with "Misty Morning Rendezvous," the 1998 Working Together for Wildlife print. With Billie are Rawley Cogan, left, host of the new video, and Hal Korber, who shot most of the footage.

Order "Pennsylvania Elk," from Pennsylvania Game Commission, Dept. MS, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. The 85-minute video costs \$29.24; PA residents add 6% state sales tax.



Ned Smith art auction

THE 6TH ANNUAL art auction to benefit the Ned Smith Center for Nature and Art is being held at the Middle Creek Wildlife Management Area visitors center on Saturday, October 9. Past auctions have featured several original works and limited edition prints by Ned, as well as outstanding works by many other wildlife artists.

Viewing and the silent auction will begin at 10 a.m., the regular auction at 1 p.m.

The Ned Smith Center for Nature and Art is a non-profit organization that seeks to further the legacy of Ned Smith as an artist, writer and naturalist. The Middle Creek visitors center is located south of Kleinfeltersville, in Lancaster County.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

1999-2000 Migratory Bird Seasons

Regular Canada Goose Hunting Season

All of Pennsylvania will have a regular Canada goose season.



In that portion of Pennsylvania east of I-83 from the Maryland line to intersection of US Rt. 30, to intersection of SR 441 to intersection of I-283, east of I-283 to I-83, east of I-83 to intersection of I-81, east of I-81 to intersection of US Rt. 322, east of US Rt. 322 to intersection of SR 147, east of SR 147 to intersection of I-180, east of I-180 to intersection of US Rt. 220, east of US Rt. 220

to the New York line. The season: **Nov. 20 - 27 & Dec. 31 - Jan. 8** with a 1 goose daily limit, 2 in possession.

In the remainder of the state (note exception) the regular goose season will be **Nov. 15 - Dec. 30**, with a limit of 2 geese per day, 4 in possession.

EXCEPTIONS: In that area of Crawford County south of SR 198 from the Ohio line to intersection of SR 18, to intersection of US Rt. 322/SR18, to intersection of SR 3013, south to the Crawford/Mercer county line, the season is **Nov. 15 - Dec. 24** with a limit of 1 goose per day, 2 in possession.

Late Canada Goose Hunting (Statewide)



5 geese daily, 10 in possession

intersection of SR 441, to intersection of I-283, east of I-283 to I-83, east of I-83 to intersection of I-81, east of I-81 to intersection of I-80, and south of I-80 to the New Jersey line.

EXCEPTIONS:

(1) Closed in Crawford County in the area south of SR 198 from the Ohio Line to intersection of SR 18, to the intersection of US Rt. 322/SR18, to intersection of SR 3013, south to the Crawford/Mercer line.

(2) Closed in the area east of I-83 from the Maryland line to intersection of US Rt. 30, to

(For the record, an early Canada goose season was held September 1 - 25)

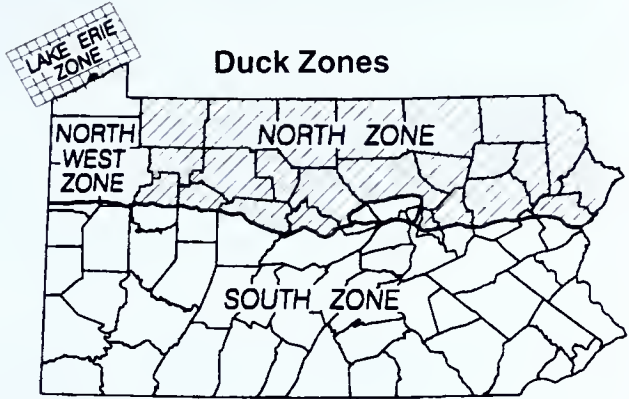
Duck Seasons - Ducks, sea ducks, coots and mergansers

Open Seasons

Lake Erie Zone, Lake Erie, Presque Isle and the area within 150 yards of the Lake Erie shoreline.

All ducks: Oct. 18 – Oct. 30 & Nov. 8 – Jan. 1.

Northwest Zone, the area bounded on the north by the Lake Erie Zone and including all of Erie and Crawford counties and all of Mercer and Venango counties north of I-80.



Black Ducks: Oct. 9 – Oct. 23 Nov. 6 – Nov. 12 & Nov. 29 – Dec. 30.

All other ducks: Oct. 9 – Oct. 23 & Nov. 6 – Dec. 30.

North Zone, the area east of the Northwest Zone and north of I-80 to Route 220, north from I-80 to I-180, north and east of I-180 from Route 220 to I-80, north of I-80 from I-180 to the Delaware River.

Black Ducks: Oct. 9 – Nov. 12 & Dec. 21 – Jan. 8.

All other ducks: Oct. 9 – Nov. 27 & Dec. 21 – Jan. 8.

South Zone, all of state not in the Lake Erie, Northwest and North Zones.

Black Ducks: Oct. 9 – Oct. 16 & Nov. 9 – Dec. 24.

All other ducks: Oct. 9 – Oct. 16 & Nov. 9 – Jan. 8.

Bag Limits

In all zones, the daily limit for black ducks is one. For all other ducks except mergansers and coots, the daily bag limit is six, and it may not include more than 4 mallards including 2 hens, 1 black duck, 1 pintail, 1 canvasback, 1 mottled duck, 1 fulvous tree duck, 2 wood ducks, 3 scaup, 2 redheads. For mergansers and coots, the daily limits are, respectively, 5 and 15. The daily limit of 5 mergansers many include not more than 1 hooded merganser. Mergansers may be taken in addition to the daily limit of ducks.

PYMATUNING

Pymatuning Wildlife Management Area shooting dates: Ducks, Oct. 9-23 & Nov. 6-Dec. 22; Geese, Nov. 15 - Dec. 22.

Shooting hours for waterfowl and migratory game birds are one half hour before sunrise to sunset

Exceptions: Controlled shooting sections of Pymatuning Wildlife Management Area: one-half hour before sunrise to 12:30 p.m., Mondays, Wednesdays, Fridays and Saturdays, and at Middle Creek, one-half hour before sunrise to 1:30 p.m, Mondays, Tuesdays, Thursdays and Saturdays.

(Also consult the 1999-2000 *Pennsylvania Digest of Hunting and Trapping Regulations* for shooting hours)

Summary of Federal Regulations

Notice: The material below is only a summary. Each hunter should also consult the actual Federal Regulations which may be found in Title 50, *Code of Federal Regulations*, Part 20. In addition to State regulations, the following Federal rules also apply to the taking, possession, shipping, transporting and storing of migratory game birds.

Restriction. No person shall take migratory game birds:

- With a trap, snare, net, crossbow, rifle, pistol, revolver, swivel gun, shotgun larger than 10-gauge, punt gun, battery gun, machine gun, fishhook, poison, drug, explosive or stupefying substance.
- With a shotgun capable of holding more than three shells, unless it is plugged with a one piece filler which is incapable of removal without disassembling the gun.
- From a sink box (a low floating device, having a depression affording the hunter a means of concealment beneath the surface of the water).
- From or with the aid or use of a car or other motor-driven land conveyance, or any aircraft.
- From or by means of any motor boat or sail boat unless the motor has been completely shut off and/or the sail furled, and its progress therefrom has ceased.
- By the use or aid of live decoys. All live, tame or captive ducks and geese shall be removed for a period of 10 consecutive days prior to hunting, and confined within an enclosure which substantially reduces the audibility of their calls and totally conceals such tame birds from the sight of migratory waterfowl.
- Using records or tapes of migratory bird calls or sounds, or electrically amplified imitations of bird calls.
- By driving, rallying or chasing birds with any motorized conveyance or any sail boat to put them in the range of hunters.
- By the aid of baiting (placing feed such as corn, wheat, salt or other feed to constitute a lure or enticement), or on or over any baited area. Hunters should be aware that a baited area is considered to be baited for 10 days after the removal of the bait.

Closed Season. No person shall take migratory game birds during the closed season.

Waterfowl hunting is not permitted on Sundays.

Shooting or Falconry Hours. No person shall take migratory game birds except during the hours open to shooting and falconry as prescribed.

Daily Bag Limit. No person shall take in any one day more than one daily bag limit.

Field Possession Limit. No person shall possess more than one daily bag limit while in the field or while returning from the field to one's car, hunting camp, home, etc.

Wanton Waste. All migratory game birds killed or crippled shall be retrieved, if possible, and retained in the custody of the hunter in the field.

Tagging. No person shall give, put or leave any migratory game birds at any place or in the custody of another person unless the birds are tagged by the hunter with the following information: the hunter's signature and address; the total number of birds involved, by species; and the dates such birds were killed. No person or business shall receive or have in custody any migratory game birds belonging to another person unless such birds are tagged.

Possession of Live Birds. Wounded birds reduced to possession shall be immediately killed and included in the daily bag limit.

Dressing. No person shall completely field dress any migratory game bird (except doves) and then transport the birds from the field. The head or one fully feathered wing must remain attached to all such birds while being transported from the field to one's home or to a migratory bird preservation facility.

Nontoxic Shot, Shot Size. NONTOXIC SHOT must be used while hunting ducks, geese and/or coots in Pennsylvania; the possession of lead shot while hunting ducks, geese and/or coots is unlawful. Shot for waterfowl hunting may not be larger than T size.

Migratory Bird Hunting and Conservation Stamp. The law requires that each waterfowl hunter 16 years of age and older must carry on his person a valid Migratory Bird Hunting and Conservation Stamp, or duck stamp, signed in ink across its face.

For additional information on federal regulations, contact Senior Resident Agent, U.S. Fish & Wildlife Service, Newark, NJ 07114; (201) 645-5910.

Hunting can be done in three dimensions, but why not allow yourself to “see” the past, present and future of the landscape, the wildlife, and the hunting process?

Hunting in the Fourth Dimension

IN HIS sad but funny book *Slaughterhouse-Five*, Kurt Vonnegut, Jr. made up science fiction characters that I think of sometimes when I'm hunting.

These aliens, the Tralfamadorians, could see in the fourth dimension. When they looked at a person, they didn't see just the individual in the current moment. They saw all the moments of the person's life as a flowing continuum or a sort of snaky caterpillar, with a baby at one end and an aged person and, finally, a corpse at the other.

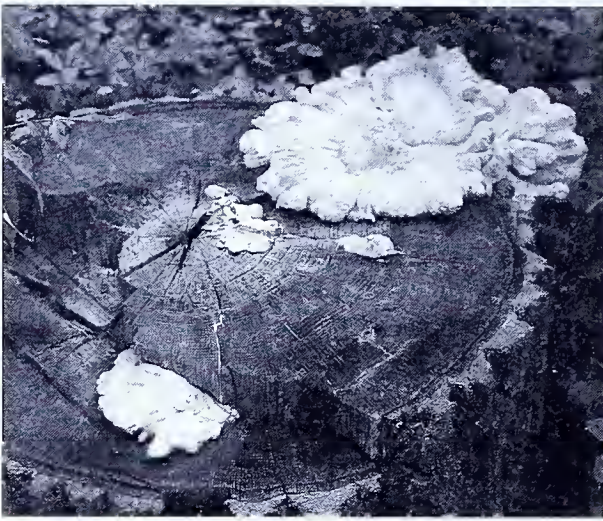
I can't see the world as Tralfamadorians do because I'm not built as they are. Like other people, my eyes are formed and positioned so I can see in three dimensions — up and down, right and left, and out and back. But I have imagination. In my mind's eye I can picture a 3-dimensional object as it used to be and as it will or may

become. I can conjure up the fourth dimension mentally, “see” the past and future, and thereby gain a fuller understanding of what I observe in the here and now. And I don't have to look as weird as a Tralfamadorian to do it.

A fall day in the woods is a landscape painted with the brush of time. I sit against a cut stump, cradling a .22 on my lap. I'm prepared to wait patiently for the gray squirrel I heard whining at me to show itself again. Around me, leaves sift down like multi-colored confetti, some singly and

IN MY fourth dimensional view, I see this squirrel as a flowing continuum from when it was born until a shot from my .22 rifle topples it from the tree, and beyond, such as in a squirrel potpie.





THE OLD STUMP is weathered gray and cracked, telling of time gone by since the felling. The tree's history is preserved in ever-widening rings on the stump's round, flat top, like a wooden phonograph record.

some in handfuls, thrown by a fitful breeze. This the moment of autumn leaf-fall, the bright hues past prime, the leaf stems parting from the twig.

Like Vonnegut's extraterrestrials, I watch it all happen in the fourth dimension.

In my mind's eye I see this bright October forest as it was at the end of last winter, the snow blanket melting to tattered patches. I watch sugar sap run in March and maple buds swell red at the tips of sky-reaching branches tossed by April's winds. Then May comes, and tree blossoms in shades of pink, russet and yellow-green rival autumn hues. Sun dapples the woodland floor and a tide of wildflowers — trilliums, hepatica, anemone, and trout lilies — flow and ebb over the ground.

Tree leaves open, spread to green fullness, as summer reaches climax in late July. Deep shadow cools beneath the canopy, and tiny acorns and hickories, hawthorn and dogwood berries plump. September brings ripeness, frost on scarlet sumac, late goldenrod and purple aster. October is bittersweet, the last glory on the branches, then the sudden decline to earth. Winter comes after, with its skeletal limbs and trees

standing like tall gray grave markers for themselves.

In my fourth dimensional view, I see beyond next season, see the phoenix of life rising in another spring's sap, and onward through the years. I see, too, the trees growing to maturity, 70, 80, 100 years or more, then downed by storm or disease or the woodcutter, like the dead stump I lean against. The living tree's history is preserved in ever-widening rings on the stump's round, flat top, like a wooden phonograph record. We could play each "song" again, relive each vegetable year, if only we could find the right player and a cunning enough needle.

The stump at my back is weathered gray and cracked, telling of time gone by since the felling. Fluted pale, orange-tipped fungi emerge from the rim, where the bark is peeling. I know that eventually the fungi will reduce this still solid remnant to the dark, soft humus I scuff under my boot heels. This is fit "potting soil" for germinating a new forest from the tiny sprouts at my feet. I see in my mind the winged maple seeds or oak acorns sprouting, watch them grow tall and slender, winnowing their ranks in mass, yearning for the sun, the victors spreading limbs wide and strong. In time they become what this cut tree once was, annually distributing the insurance of a future forest.

A squirrel appears suddenly on a limb that I'd swear was bare a minute before. I swivel the rifle until the stock is against my cheek, the forearm cradled in my left hand, my left elbow angled hard against my knee. I peer through the scope and the squirrel is larger, looks like something I can hit with a bullet. I feel confident as my right index finger tightens and the trigger starts to move.

I live the shot as a multi-dimensional experience, as past, present and future at once. Behind me in my hunting history is target practicing, shots at game missed and

hit, and then more often hit than missed. I feel my progress intuitively in this moment's action. In my mind, before the bullet is scarcely on its way, I already see the squirrel topple from the branch, hear the single thud on the ground that means instant kill. I foresee carrying the gray by a hind foot back to the stump (now a convenient cutting board), and watching and listening for more squirrels as I clean the one in hand. Further along in time, I see squirrel fritters turning golden brown in the pan, or maybe Brunswick stew of squirrel, corn and limas bubbling on my stove.

The game animals I hunt are all creatures that exist in four dimensions, too. As for this particular squirrel, in a fraction of a second, I'll close its expanse of live time, but I know what the rest of its life must have looked like. Tralfamadorian-fashion, I "see" how the squirrel was born in one of the hole-pocked trees nearby and nursed with its siblings in the dim, leaf-lined cavity. Out of the den, it quickly became expert at treetop acrobatics, avoided the hawk and fox, and feasted on last fall's bounty of fat nuts, eating some and burying more for winter's scarcity. In early spring, it courted and mated, perhaps nursed young ones of its own, and the seasons circled again.

At the closing for this particular squir-

rel, my shot cracks the quiet. Another squirrel (son of the dead one I've just bent to pick up?) cackles at me. "So it goes," as author Vonnegut would say.

*Allow yourself
to see the past,
present and
future of the
landscape, the
wildlife and
your own life.*

Hunting could be done, I suppose, in just three dimensions, in the box of physical space we exist in at any given moment. Three dimensions are the ones we most obviously live in and move through. But we also sense that another direction, another dimension — time — is always about us. We can physically look vertically, horizontally, forward and behind

to see what's ahead or what we've just passed, but we cannot stop and look back at the minute just gone or toward the seconds just ahead. That is time's frustration, which memory and imagination overcome.

In *Slaughterhouse-Five* the "hero" was limited to three dimensions, until he learned from the aliens how to see, with the eye of understanding, everything flowing through time. The story is fiction, but the message practical, even especially appropriate for sportsmen.

Let yourself get "unstuck" from the separate moments of your hunt; release yourself from the prison of the present. When you're afield, allow yourself to "see" the past, present and future of the landscape, the wildlife, the hunting process, and your own life. You may find that hunting's true dimensions are limitless. □

Books in Brief

(Not available from the Game Commission.)

Undercover — The Ultimate In Concealment, by Jim Koricich, published by Outdoor Enterprises, Inc., P.O. Box 531, Irwin, PA 15642, 194 pp., \$15.95 plus \$3.50 shipping & handling. This book is geared to the bowhunter after that trophy whitetail buck. The text offers tips for concealment and elimination of human scent; methods for selecting effective camouflage; secrets for keeping warm while on stand; and a host of other useful tidbits to enhance hunting success. A must book for every serious bowhunter.

Behind the Badge

By J. Christopher Heil

Luzerne County WCO



A low, guttural growl, followed by loud popping jaws and snapping teeth emanating from the thick cover had my nerves on edge.

Charged!

SATURDAY, November 7, 1998, was a cold, overcast day with a cold front approaching from the northwest. It began like most Saturdays during the hunting season. I was up early to meet with deputies Mike Rospendowski and Tim Rader, to go over their patrol assignments. After the deputies left, but shortly after 8 a.m., Deputy Rospendowski called on his cellular phone, advising me that the Butler Township Police Department was requesting assistance with an injured bear on Route 309. I told Mike that I would respond immediately.

After gathering my bear processing equipment, I pulled out of the driveway and radioed the region office dispatcher as to where I was going. The dispatcher advised me that the Butler Police were already on the scene and awaiting my arrival.

As I drove over the Nescopeck Mountain and headed into Butler Valley, I tried to envision what was going on. Usually, bear calls are a WCO's nightmare, filled with curious onlookers who show little or no common sense in their frenzy to see the bear. I hoped everything was under control.

As I approached the intersection of Foothills Drive and Route 309, I saw two

police vehicles parked in front of several houses across the street from a small shopping center. Butler Township Police Officer Danny O'Donnel and Sergeant Carl Stolka of the Freeland Borough Police Department apprised me of the situation. It seems a large, obviously injured bear was feeding on a roadkilled deer in the front yard of one of the residences located on the west side of Route 309.

The officers told me the bear was reluctant to leave the area, and became extremely agitated on their approach. Finally, moments before my arrival, the bear retreated into a heavily wooded and brushy area behind the residences. As I listened to the officers' account, I pulled my Remington 870 from its rack and loaded it with 12-gauge slugs. PGC policy, as well as common sense, dictates using a shotgun in this type of situation. I asked the police officers to show me where they had last seen the bear.

As we approached the area, I explained to them that working with bears usually goes smoothly. But because the bear had been feeding on a roadkill in such a busy area, in broad daylight, coupled with the fact that it appeared to be injured, made

me a little nervous. This was not normal behavior for a healthy bear.

With this in mind, I told Dan to go to the north side of the brushy area and stand where the field and yard of the Mussoline residence met. I asked Carl to cover the south side of the brushy area, which ran parallel to Foothills Drive. I told them that I would sneak down the side of the thick cover and then walk through to drive the bear out into an open area. I hoped to get a good look at it and, if need be, safely put it down.

Both officers reiterated that this bear seemed large, severely injured and in poor spirits. They believed that it presented a clear and present danger to the public, and that I should be careful. I told them that if the bear was that severely injured, they should attempt to kill it if I drove it by them. We then all agreed that whoever got the chance would shoot to kill, ending the suffering of the bear and the danger to the public.

I waited a while to allow the police officers to get into position before I began my stalk. I slowly made my way down the south side of the brushy area until it joined open woods that allowed good visibility. Before I made my way into the thick cover, where I thought the injured bear was hiding, I scoured the woods for any sound or movement. The block of thick cover was approximately 150 yards long and 100 yards wide. It was covered with multiflora rose, goldenrod, and birch and pine saplings. Visibility was poor; I could see no more than 10 feet at any time, and the wind made hearing difficult.

I walked slowly, stopping often to listen for movement in the dry brush around me. There were scattered large trees throughout the brush, and I used them as guides as I zigzagged toward the policemen on watch ahead. After 20 minutes of tediously searching the area, I had not seen any sign of the bear. I could hear the traffic heading in and out of Hazleton on Route 309. Above the tall brush I was able to make

out the rooftops of the houses ahead. I was beginning to think that this bear was not as injured as the police officers believed, and that it might have given me the slip.

I covered another 30 yards, working back and forth like a bird dog. I could now see Carl standing about 80 yards to my right. He was motioning me to keep going. I headed toward a large pine tree visible above the tall brush. The brush was so thick that I could no longer see Carl as I struggled forward. Crashing through the dry, dead stalks of goldenrod, I stopped every five or 10 yards to listen for movement as I closed the distance to the pine tree. I was within 10 yards of the tree when I heard a sound that made the hairs on the back of my neck stand straight up.

Emanating from the base of the pine tree came a low guttural growl followed by the sound of popping jaws and snapping teeth. The bear was dangerously close, but I couldn't see it. I didn't move a muscle, literally paralyzed by fear. Seconds later the brush was crashing in front of me, and I watched the goldenrod part as the bear charged right at me.

In a flash the bear appeared almost on top of me. I raised the shotgun, covered the oncoming brute and pulled the trigger. The slug hit the bear in the back, just behind the right shoulder. The impact caused the bear to veer off slightly, giving me time to chamber another round. I felt like a matador as I stepped back and leaned forward to shoot the bear a second time as it turned toward me. The second slug hit just behind the right shoulder and it fell. The bear growled then expired. The distance between us was less than eight feet.

Barely a minute passed before I heard the cracking of brush around me. Carl and Danny, with handguns drawn, arrived from both sides. I was visibly shaken, and once they saw that the bear was dead, they holstered their guns. Carl, Danny and I stood staring at the fallen bear, each momentarily lost in our own private worlds. Danny put his hand on my shoulder, and



WCO HEIL, along with sergeant Carl Stofka, Freeland Borough Police Department, left, and Butler Township Police Department officer Danny O'Donnel, middle, with injured bear that had to be put down. Heil's heroics ended the bear's suffering, as well as the danger to the public.

Carl removed the still-loaded shotgun from my trembling hands.

I told them what had happened, and we all agreed that I had taken the only course of action available. I not only ended the bear's suffering, I also ended the danger to the public. This was the first time in my career that I was actually attacked by a wild animal. I've had a lot of experience working with bears in northeastern Pennsylvania, and all contact to this point, even if not completely positive, was always under control.

The property owner, Tony Mussoline, walked back to make sure everything was all right. After seeing the size of the bear, he told me that he would bring back a lawn tractor and a tow strap to help drag it out. We dragged out the bear and, with everyone's help, loaded it onto the rack on my truck. After thanking Carl and Tony for their help I took the bear to a local processor for a necropsy.

Processor "Toot" Rinehimer and his wife, Lucille, were glad to help. Toot

winched up the bear, weighed the carcass and skinned it out. Big but extremely emaciated, the bear weighed nearly 400 pounds. Its right rear leg had been shattered in a previous collision with an automobile.

The claws on this paw were much longer than normal because, unable to place any weight on it, the bear constantly held the paw off the ground. The right front leg was also broken and had not healed well. The carcass showed signs of starvation; the vertebrae clearly showed on the bear's back.

Both the body and hide had little fat. A

healthy bear this size should have about five inches of fat at this time of year. If this bear had been healthy he probably would have weighed between 500 and 600 pounds.

Reminiscing about this bear and his life here in Luzerne County makes me wonder where he came from. Was he the bear that wintered in the culvert pipe under the interstate? If he was that bear, the people in the St. Johns and Drums area will miss him, as will I. I never heard a single complaint about that bear. It's a shame that such a magnificent animal had to spend his last days sick and suffering. He was driven by desperation and starvation into man's world, to feed on another unlucky victim of the highway.

We humans have invaded the bear's territory and continue to develop and live in wild areas. Conflicts between humans and animals will only increase in the future, with animals losing in the end. Did I really kill that bear? Technically, yes, but really? □

Only time will tell if Presque Isle will remain a sanctuary for rare plants and migrating birds or serve as a major recreational destination for millions of people.

Almost an Island

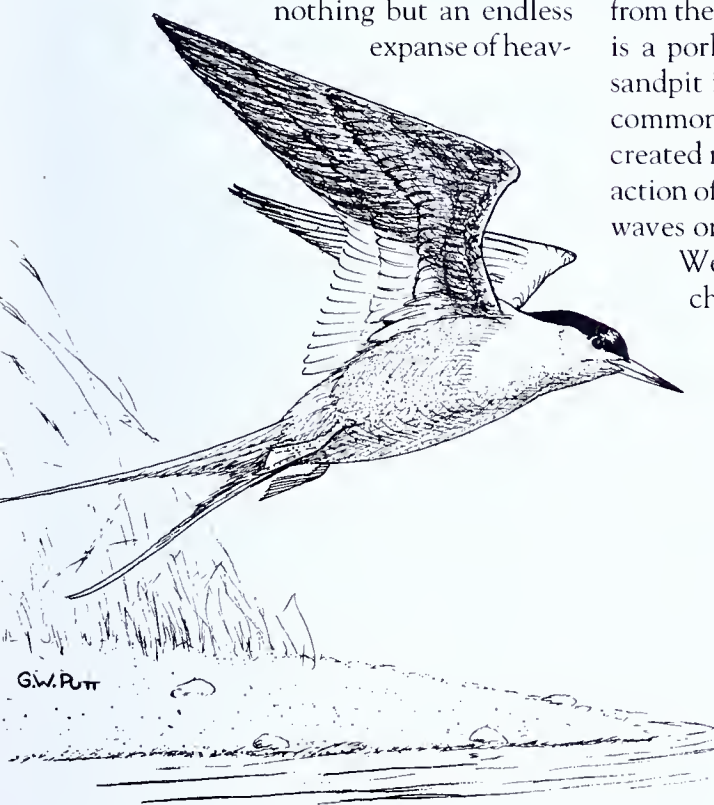
THE FIRST TIME we visited Presque Isle State Park we could scarcely believe we were in Pennsylvania. Wind driven waves rolled onto wide, sandy beaches. Looking out we saw nothing but an endless expanse of heav-

ing water. Surely we had stumbled into a time warp and been wafted to the Atlantic shore.

Extending seven miles northeastward into Lake Erie, less than a mile offshore from the city of Erie, Presque Isle State Park is a pork chop-shape, low-lying, curving sandpit in the far northwest corner of the commonwealth. Scientists believe it was created more than 11,000 years ago by the action of westerly winds, water currents and waves on glacial sand.

Weather conditions continue to change both the configuration and the actual location of the peninsula from year to year, eroding sand at its neck and depositing it at its head. As a result, Presque Isle has moved nearly half a mile east over the last 100 years. Although historically the peninsula's area was estimated to be 3,200 acres, it is now thought to be far less, anywhere from 2,100 to 2,900 acres.

Whatever the amount of land, the park contains an unusual diversity of habitat



~ Tern ~

that illustrates 600 years of plant succession in six ecological zones: the water's edge, sand plain, dunes and ridges, old lagoons and marshes, thicket subclimax forests and climax forests. Because it is one of the few places in the world where ecologists can study plant succession from a sand and water environment to a climax forest in less than a mile, the National Park Service named it a national natural landmark in 1967.

These diverse habitats have fostered the growth of hundreds of plant species. Botanists have been collecting on the peninsula since 1868, when T.C. Porter and A. P. Garber documented species that have since become rare, endangered or threatened in Pennsylvania. In 1908 and 1909, Carnegie Museum botanist Otto E. Jennings conducted a thorough census

of plants on Presque Isle. He found more than 439 species, many that were rare and several that occurred nowhere else in Pennsylvania. During the 1980s, an update of Jennings' work was begun under the direction of Jim Bissell, Curator of Botany at the Cleveland Museum of Natural History. Since then, more than 500 species of plants have been discovered, some are new native species and others are aliens.

On the moving sand plain, beach pea, wild blue lupine, beach wormwood and lyre-leaved rock cress grow, along with two warmseason prairie grasses — switch grass and little bluestem. Variegated horsetail, branching burreed, silverweed and white-stemmed pondweed reach their southernmost limit on the peninsula. Altogether, close to 70 plants that are rare, threatened or endangered in the commonwealth live on Presque Isle, including brook lobelia, Indian wild rice, American searocket, twig

rush, American beachgrass and common hop-tree.

Presque Isle is also a haven for birds, especially during migration, when it becomes one of the 10 hottest birding spots in the United States. Like its better known counterpart, Point Pelee, on Ontario's Lake Erie shore, Presque Isle's peninsula attracts shorebirds, waterfowl, birds of prey and songbirds heading north in the spring and south in the fall.

During our first visit on a rainy day in mid-May back in 1983, we tallied 100 species, including a rare sedge wren. In all, more than 320 species of birds have been recorded there, including accidentals such as an Iceland gull, snowy plover, surfbird and red-dish egret.

Such rarities of plant and bird life form a common bond among visitors

who are drawn by Presque Isle's natural heritage. They are continually working to save the unique habitat from recreational overuse, a result of the peninsula's proximity to Erie, Cleveland and Pittsburgh. The small park annually hosts up to five million visitors, more than Yellowstone and Grand Canyon parks combined, and most visitors come from Memorial Day to Labor Day for sun and fun, not birds and plants.

So every time I visit I learn of new skirmishes between small numbers of the ecologically conscious and large numbers of recreationists. Old-timers tell of the last bald eagle nest on the peninsula that was destroyed back in the late '50s, so that sand in the nesting area could be removed and used to build up the naturally eroding beach; of a fire trail built through sedge wren nesting habitat; of wetlands paved over for a bike trail; and of common terns

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and piping plovers driven off their ancestral nesting grounds by humans, their pets and their boats.

Beach replenishment has been an especially contentious issue. In 1956, the Army Corps of Engineers widened the beaches with sand brought in from a local quarry. A supportive "nourishment" project for the beach was initiated in 1961 and continued on a yearly basis from 1975 on. From 1955 until 1986 the Corps spent \$19.4 million for erosion protection. Then U.S. congressman Tom Ridge fought for and secured federal funding to build 55 breakwaters on the lakeside of the peninsula.

This attempt to stop nature in its tracks works, its proponents claim, by sheltering the shore from the full force of the waves. By partially blocking the waves, it also slows erosion, because as the waves lose energy, they drop sand. Thus, less sand is carried along the shoreline and more is dropped on the beach. During the time the installation of breakwaters was being debated, scientists and engineers testified on both sides of the question. Some said it would work, others that it had already failed along ocean shores.

Economic forces won the battle, even though at least one naturalist pointed out that, "It is the movement of the peninsula along the shore, the continual birth and colonization of new land, that has made it one of the rarest and finest ecological preserves in the world."

A new park brochure promotes Presque Isle as a natural laboratory for viewing the geologic past and watching geologic forces in motion. Yet it also says, "The continuous migration of the peninsula has required special shoreline management techniques

that seek to protect the environment and to preserve the park for recreational opportunities."

Furthermore, a press release from Pennsylvania's Department of Conservation and Natural Resources after fierce storms in 1997 said the storms "delivered several nasty punches to Presque Isle . . . essentially wiping away one of Pennsylvania's most valued natural treasures — its only surf shoreline beach."

DCNR Secretary John C.

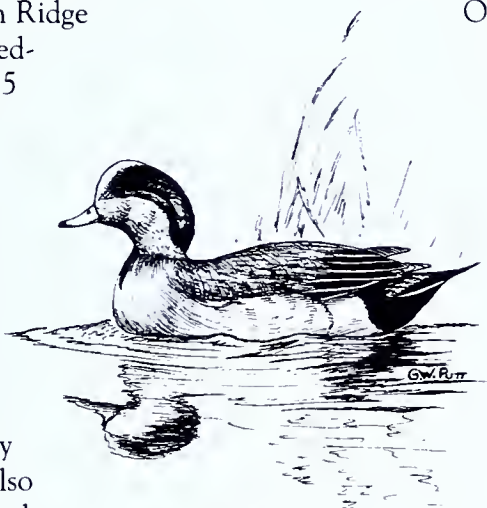
Oliver announced that both state and federal funding would be used to replenish Presque Isle's beaches. At that time Oliver was willing to only say that the breakwaters probably helped reduce the damage to the park and its beaches during the storms.

Last October I again visited Presque Isle State Park. As usual, my friend Evelyn

Anderson, an amateur botanist and nature columnist for the *Erie Morning News*, accompanied me.

Our first stop was Gull Point, the dynamic tip at the eastern end of the peninsula that is continually built up by sand eroded from the beaches and now protected by the breakwaters. This 319-acre plot has been declared a state park natural area. Sixty-seven acres of it were set aside as a state management area and, in 1993, it was closed off to boaters and birders from April to November.

The hope is that without human disturbance, shorebirds that nested there 30 years ago, such as terns, sanderlings, sandpipers, piping plovers, turnstones, dunlins, red knots and whimbrels, will come back. Although they have begun to use the area for resting and feeding, only common terns have nested there so far. In addition, Gull



~ Wigeon ~

Point harbors the most rare plants and the best examples of plant succession in the park.

On this, my fifth visit to Gull Point, things were clearly amiss. According to Evelyn, "Not as many shorebirds are there since the habitat's been changed by the breakwaters."

As we walked along the Gull Point beach, she pointed out the artificial "dirty gravel" brought in to replenish the beach and said that it had smothered a rare wildflower area. Furthermore, the ecological zones are no longer as well defined as they used to be. Trees that had once been part of the lagoon area were at the edge of the fast eroding, narrow beach. Many had toppled over or were on the verge of being undermined by water washing away the sand beneath their roots. What the breakwaters had given (at least some of the time) to the beaches behind them, they had taken from Gull Point. Many sand dunes had been washed away.

Another problem, first mentioned by botanist Jim Bissell in the 1980s, was the rise of alien plant species. Speaking to the Presque Isle State Park Advisory Committee, of which Evelyn is a member, he said in 1987, "The exotics (alien species) really are the greatest threat in the park. He specifically pinpointed Japanese honeysuckle in the interior areas where it was pushing out valuable native species and advancing into the sand plains.

Phragmites were of even greater concern. This large, coarse, perennial grass was taking over wetland species, out-competing several endangered, threatened and rare plants. During my visit I walked through tunnels of it on Gull Point. Because it is so aggressive, it soon creates a monoculture, choking out other plants essential to waterfowl and wildlife, such as the bayberry shrubs. Phragmites have no nutritional elements for wildlife.

European white birch trees have also been spreading over the sand plain. They are an allelopathic species, releasing toxic

substances that suppress the growth of other plants.

The park is trying a variety of nonpoisonous approaches to rid the area of those and other aliens. As we walked out to the fenced edge of the Special Management Area on Gull Point, Evelyn pointed out a section that had been experimentally burned in an effort to eradicate Japanese honeysuckle and encourage the resurgence of rare plants, a management approach that has succeeded so far. They have also been hand pulling phragmites in several places and may experiment with other methods of eradication to see what works best.

One problem that seems to be solved, at least for the time being, is the overpopulation of deer that had been decimating the plants as long ago as 1947. Then, Jennings described a "matted heath of bearberry on the sand ridges. That species has not been rediscovered on Presque Isle, and Jennings warned then that deer were exterminating many of the flowering plants. After much discussion, special regulated hunts were held on the peninsula for several years. They have been successful in bringing the deer population in line, and deer browsing, at least, has been eliminated as a threat to the rare plant life on the peninsula.

Our next stop was Beach 11 across from Gull Point. Over the last couple years a large sandpit has formed, blocking boats from access to Thompson Bay. This shallow water was jammed with waterfowl — American coots, Canada geese, a tundra swan, pied-billed grebes, American wigeons, herring and ring-billed gulls. Aliens, though, were the big attraction for several visitors. Three mute swans had settled in, and I wonder if they will cause problems like they have in coastal areas. They and the other birds seemed particularly attracted to the greenish-yellow mats of water stargrass that shimmered on the water.

Here was still another controversy in the making. Boaters are upset at losing Thompson Bay access and want the area

dredged and the sand dumped back on the beaches. Birdwatchers and other naturalists want to allow nature to take its course. But Evelyn says that the sandpit is made up of the coarse sand brought in for beach replenishment, not the natural sand of Presque Isle. So is the sandpit a product of natural forces or of humanity's meddling? Anyway, last March the Presque Isle Park Advisory Committee voted to remove a portion of the sandpit at Beach 11.

To me, Presque Isle State Park is a miniature model of the larger world that wrestles with the same problems. Does the unique ecological community or peoples' perceived needs come first? Can the park remain a sanctuary for rare plants and migrating birds while still serving as a major recreational destination for millions of people? Will humanity's continual meddling in the natural world in an effort to create more recreational opportunities for

Last March the Presque Isle Advisory Committee voted to remove a portion of the sandpit at Beach 11.

the majority, eventually destroy the natural life of Presque Isle State Park? And if it does, will most people care?

In my darker moments, I think not. Diverse life forms are disappearing all over the earth, and only a small minority of folks protest. Most people believe that the needs of humans must come first, forgetting that our existence is still dependent on the web of natural life that sustains us, both physically and spiritually.

But if, through the work of dedicated people, Presque Isle State Park can retain its unique ecological heritage while still serving the recreational needs of humans, it may serve as a positive model for the larger world. □

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A bowhunter's actions immediately after a deer is hit can determine whether or not he'll bring home the venison.

After the Shot

ONLY THREE deer I've taken with the bow have died within sight of my treestand. The rest required following a blood trail and sometimes less obvious sign until the animal was recovered.

Bowhunters who are reasonably proficient at scouting, stand selection and sign interpretation, will sooner or later have to track a deer hit with an arrow. What they do after the shot can make all the difference in bringing home the venison.

When an arrow flies true and strikes a deer's vital area, blood loss caused by the razor sharp broadhead results in a quick death and a short tracking job. Deer, however, are remarkable animals and sometimes, despite a mortal wound, travel a considerable distance before expiring. Even so, recovering the animal can be relatively easy if there is a good blood trail to follow. Sometimes it takes considerable effort to establish that trail. Knowing what to do after the shot gives the hunter the best possible chance of recovering his trophy.

Good bowhunters never take low percentage or questionable shots. Only unobstructed shots within the hunter's range of proficiency should be considered. Personally, I never take a shot at a deer unless it is quartering away from me. The reason for this is simple. In a quartering away shot, an arrow passes forward through the abdominal cavity almost certainly striking a



If, after the shot, blood is not immediately conspicuous, examine overturned leaves and look for hair or tiny blood droplets to determine a line of flight.

vital organ, or organs, as it exits. If the animal is facing the hunter or even standing broadside, the arrow may miss vital areas, and the result could be a lost deer.

Despite our best efforts, cold, fatigue or excitement can cause an arrow to fly off its mark, striking the animal in a less than ideal location. Modern broadheads are extremely sharp and usually cause more dam-

age than what might be immediately evident. With a poor hit, sign may be scarce and the blood trail sparse, but these deer are recoverable, providing the hunter uses common sense, woodsmanship and patience.

After the shot, the ability to mentally reconstruct subsequent events is a tremendous aid to recovering the deer. During the initial seconds after release, the hunter must assess where the arrow struck, the reaction of the deer, and the direction it took as it disappeared from sight. In addition, it's important to mentally note the last position the deer was seen before it disappeared. From the ground, everything takes on a different perspective. Unless the hunter has a good idea where the deer went, he might waste valuable daylight attempting to determine where to take up the trail if blood is not immediately visible at the site of the hit.

The eyes are the primary tools for establishing the blood trail, but the ears can also play an important role in deer recovery. A fleeing deer can often be heard changing direction, stopping or even falling. Watch and listen as long as possible to what your eyes and ears are telling you. Listen for breaking limbs or thrashing to determine the deer's last position.

Veteran bowhunters know that individual deer react differently after being struck by a broadhead. They may run, walk away, rear up on their hind legs or hunch their backs. Some may drop dead in their tracks while others may not even be fully aware that something has happened. Deer struck in the heart or lungs may run off wildly before dropping. Conversely, a deer hit in the liver may walk or trot a short distance before stopping and standing or even lying down within sight of the hunter. This is the time to remain quiet. The longer a deer stays in sight after being hit the better the chance of recovering it.

Making quick assumptions is a good way to lose a deer. When a deer shows little reaction to the hit, the natural tendency

of the inexperienced hunter is to assume the arrow missed or that the shot is nonfatal. Fatal wounds don't always bleed heavily in the initial moments following the shot. If I don't have hard evidence of a missed shot, such as a clean and undamaged arrow, I assume the shot was lethal and begin searching for the blood trail.



IMMEDIATELY after the shot, carefully inspect the arrow for clues, such as tallow or hair, which will help in determining where the deer was hit.

A deer shot in the chest cavity with an arrow from above may not leave an obvious blood trail for 10 to 30 yards from where it was initially hit. If I can't find blood, I carefully inspect the arrow and look for other clues, such as tallow or hair, which will help me determine how seriously the deer was hit. If, after the shot, blood is not immediately conspicuous, I examine overturned leaves and look for hair or tiny blood droplets in order to determine a line of flight. Once satisfied of the hit, I continue on this line until a substantial blood trail is found. Blood is the primary method for tracking a wounded deer, so establishing the blood trail is the most significant obligation the hunter has after the shot.

When following a blood trail, especially after dark, be aware that the deer might be

lying just ahead of you. The tracking job should be done slowly because the animal may still have enough strength to bound away. When this happens, I find the spot where the animal had lain and wait an additional half hour before resuming the tracking job. If a deer allows the hunter to approach closely, then, in my opinion, that deer is near death and will be recovered in short order. The danger is in losing the blood trail before the animal is recovered.

For as long as anyone can remember, there has been controversy over how long to wait before trailing a wounded animal. After 30 years of bowhunting, I've learned to begin tracking almost immediately. I collect my gear and take time to mentally reconstruct the shot before getting out of my stand to further assess the situation. Some hunters may not agree, but I feel five to 10 minutes is long enough to wait for a fatally hit deer to lose consciousness and die.

More importantly, because most of my hunting is done in the evening, I want to establish a blood trail as quickly as possible in case a longer tracking job is necessary. After things quiet down following the shot, I descend from my shooting platform and look for sign while there is still good light. Establishing the blood trail, I continue on the track unless I have a reason to back off, such as suddenly jumping the animal. As long as there is a good blood trail and no evidence of a stomach or intestinal hit, I advocate staying with the animal until it is found.

If there is reason to suspect a hit in the paunch area, the tracking job requires caution. This is one case where waiting several hours is prudent. Unless hit in the liver, mortally wounded deer usually run or walk only a short distance before dropping. This is true provided they have no reason to suspect danger lurks on their trail. This is why it is important to remain still after the shot. A deer running off in headlong flight makes recovery more difficult.

Deer hit in the paunch or intestines may

react differently and not lie down immediately. They have the ability to go a long way before succumbing to their wounds. At first the blood trail may be sparse, and the blood may be dark due to the infusion of stomach material. Food particles may be visible on the arrow fletching, and in the case of intestinal puncture, a greenish material from vegetation in the rumen may be visible as well. Under these circumstances, it's important the hunter recognizes he may have a long trail to follow and that a long wait is necessary. These deer can be recovered but it will take time.

If faced with the prospect of trailing a gut shot deer, experienced trackers feel a wait of at least six to eight hours is required before tracking begins. I agree. Given enough time, hemorrhage and shock will take their toll. Push a gut shot deer and recovery is unlikely unless a full-scale search involving several hunters is undertaken the next day.

Over the years, I've recovered many deer for myself and for others, and I believe that mortally hit deer will not bed down to die. Rather, a mortally hit deer tends to keep on the move and may bed down only if it has sufficient strength to get up again and keep moving. I've never found a deer that had been hit with an arrow dead, curled up under some pine tree. Rather, all the deer I've recovered have been found lying dead, stretched out on the ground, suggesting the animal collapsed in mid-stride. Pursuing the animal at a slow pace will result in quicker death due to hemorrhage.

If I find a depression and accompanying sign where the animal had bedded down, I assume the animal is just ahead of me and nearby. I carefully examine the area for blood and move cautiously to avoid spooking the animal into wild flight. As I said earlier, the exception would be if the deer allows me to approach within a very short distance, 10 yards or less, before bolting. When this happens, the animal is very weak and close to death. I'm sure it will be

recovered within 50 yards or less. Remember, when trailing a deer in the dark, encountering deer at these ranges is not unusual.

If the blood trail is sparse, marking it with pieces of toilet paper is a good idea. Sometimes a deer will stop and turn on its back trail before taking a new direction. This is where most inexperienced trackers lose the blood trail and in many cases the animal. Marking the trail with toilet paper makes it easier to backtrack and to reestablish the direction the deer took. If a sparse blood trail suddenly becomes a large blood splotch and the trail abruptly ends, this is good indication the animal stopped, backtracked and took a new direction. Drops of blood can be very small at first and easily missed. Look for tiny drops of blood on the ground, twigs, rocks and even on the underside of leaves.

Some things in life are best done alone, and in my opinion, tracking is one of them. In the rare occasions when I need help, I make sure to ask an experienced friend whose skills I trust. Last fall I hit a nice 8-point just as an evening thunderstorm threatened to wash away all available blood sign. Worried that I might not find the deer, I asked a friend to help with the tracking job. We followed the buck across several small creeks, through a swamp, up a hillside, and through a cow pasture before finding him lying dead in a dry creek bed. It was just in time, too, because the skies opened up just as I tagged the deer and tied my dragging rope around its antlers. We were soaked but we got the deer.

Too many unskilled trackers botch up the trail by walking too far ahead of the sign or by walking over important indicators that can determine the path the deer

took. Following the blood trail by walking on either side of it preserves the sign in case trailing has to be started over. Having more than one other person help with the tracking can be an invitation to disappointment. Tracking is best done in a deliberate, methodical manner. To hurry or to involve too many people is to risk losing the trail and the deer.

As the trail unravels, it's important to evaluate the sign encountered along the way. A fleeing deer will dig its hooves into the ground, leaving upturned leaves and hoof prints. This is an important consideration if the blood trail stops and tracking depends on following this less obvious sign until the blood trail is reestablished. Blood on both sides of the trail indicates complete arrow penetration; a sparse trail indicates the wound may be plugged with hide, hair or the arrow shaft. Bright red blood indicates arterial bleeding either from a lung hit or from a hit on the rear leg where the femoral artery may have been severed. Under these circumstances, I like to continue following the blood trail to its conclusion.

Despite diligent tracking efforts the blood trail may disappear. A wounded deer will often stop, turn in its tracks and back

FIVE to 10 minutes is long enough to wait for a fatally hit deer to lose consciousness and die. As long as there is a good blood trail and no evidence of a stomach or intestinal hit, I stay with the animal until it is found.



trail some distance before heading in a new direction. To determine if the deer doubled back on its own trail, try going back to the last sign and searching intently for additional clues. If there is suspicion the deer backtrailed, search both sides of the trail until the new direction is found.

If the trail is lost and all else fails, going back to the beginning and starting over is an effective way to re-establish the blood trail. Follow the trail markers, carefully searching for any sign that may have been missed. Wounded deer often take the path of least resistance, so examine obvious areas such as roads or paths for blood. Be sure to check along small creeks, because deer seem to head to these areas when hurt. Look carefully along these small stream banks; I've recovered more than a few deer from these areas. The important thing to remember is to not give up. If it's late and the trail is lost, mark the last sign of blood conspicuously and return to that location

at daylight the following morning. I've found several deer the morning after I shot them and have never lost any meat to spoilage.

We as hunters have an ethical responsibility to recover any deer hit with an arrow and to remain on the trail until the animal is recovered or an exhaustive search and a lack of sign indicates the animal suffered a superficial wound and will recover. Good bowhunters are not only good shots, they're good woodsmen who have a commitment and dedication to their sport and a consideration and respect for the wildlife they pursue.

Preseason practice is necessary for good shooting, but what a hunter does after the shot goes a long way in determining the outcome of his season. Good tracking and trailing techniques are essential skills that are no less important to today's archers than they were centuries ago to Native Americans. □

Fun Games — By Connie Mertz

Be Prepared

Circle the objects below that hunters should include in a first aid kit. Then copy the eight letters not circled to discover why a first aid kit is important. (Words do not go diagonally.)

S S A P M O C S W H I S T L E
U T O P O G R A P H I C M A P S
E F I N K T E K C O P R D O O F
M I R R O R V S D I A D N A B I
V A N T I S E P T I C B A N D A G E S
S R O S S I C S A T W E E Z E R S L

answers on p. 64

Any centerfire cartridge under the right circumstances will take a deer, but many other factors come into play when choosing . . .

The December Rifle

I DON'T know if I want a bolt action .30-06 or a lever action .30-30 Winchester," a customer in a gun shop remarked while surveying a rack of rifles. I've been trying to decide for more than a month. Now that buck season is only a week away, I can't stall any longer. Getting the right

December rifle has always been a problem for me."

The salesman told him I wrote about guns, and suggested that I might help him with his dilemma. I wasn't too anxious to get involved, but I simply asked the man what type of terrain he hunted in. When he told me it was a large tract of woodland that had been timbered, I suggested the .30-06 in a bolt action. The fellow claimed his father had been successful for years using a Model 94 Winchester .30-30 on the same land. He also said his father hunted only in one large valley that at that time was thickly wooded from hilltop to hilltop. Under those conditions, the longest shot would be 100 yards. The compact Model 94 Winchester .30-30 is right at home in thick stuff when 170-grain bullets are used.

Not wanting to be responsible for him getting a rifle that he would not be satisfied with, I left. I have no idea what he purchased, but I'll bet it was the lever outfit. This man was influenced by events from the past. The entire philosophy of deer hunting had changed, and so had his hunt-

DARREL LEWIS has taken several deer with his Remington Model 7600 .35 Whelen. Standardized a few years ago, this old wildcat cartridge is ideal for hunting in thick cover.

Helen Lewis



ing terrain. Still, he felt obligated to use a rifle and cartridge that was a favorite in his father's day.

I've been asked several times why it's necessary to argue about which cartridge is best, or which type of action is tops in deer country, when it's obvious a .300 H&H Magnum will handle any situation any deer hunter could possibly face.

In all honesty, that argument has merit; the .300 H&H Magnum, or any of the larger magnums are more than adequate for deer. However, there happens to be more to deer hunting than just the size of the cartridge used. Actually, the same argument can be made for the .30-06, .280 Remington, .270 Winchester, 7mm Remington Magnum and several other powerful cartridges. But deer hunters in Pennsylvania are not all made from the same mold, and that's what makes picking the right cartridge so fascinating.

When it comes to selecting the right cartridge, each hunter should decide which rifle/cartridge combination is best for his needs. Basically, all conventional big game cartridges are adequate for normal hunting requirements, but indecision still reigns supreme. That's only human nature.

Before the .30-06 came into existence in 1903 — in the famous M1903 Springfield service rifle — many big game hunters used the ex-military .30-40 Krag, which had been adopted by the military in 1892. The Krag replaced the .45-70 Model 1873 "trapdoor" rifle. The .45-70 rifle fired a 405-grain slug that exited the muzzle at around 1,300 fps. The Krag, with a 220-grain bullet, had a muzzle velocity of around 2,200 fps. That was a significant difference, so the surplus .45-70s were sold to the public, and the big bore singleshoot became common in the Pennsylvania deer woods. It's worth noting that many trapdoor rifles are still in existence, but they should not be fired with any type of ammunition until thoroughly inspected by a qualified gunsmith who is familiar with the old military rifle.

In turn, the .30-06 Springfield sounded the death knell for the .30-40 Krag. During the Depression era the ex-military Krag was available for around \$10, and thousands of uncut Krags were used for deer hunting. The Krag was also sporterized, but its hinged-box magazine on the right side was unsightly. Some older hunters claimed that opening the box magazine was similar to opening an outside cellar door. Chamber pressures for the ex-military .30-40 Krag should not exceed 40,000 CUP. The Krag's bolt is still the smoothest of all bolt action rifles.

Picking the best cartridge from today's super big game cartridges is as difficult as picking the winner of a beauty contest. The cartridges run from the 6mms to the massive .458 Winchester Magnum. In other words, you can have anything you want, but it isn't just a matter of selecting a super magnum-type cartridge, unless you're hunting Kodiak bear or Cape buffalo. I may be out of step with today's magnum crowd, but in the terrain I hunt, shots beyond 200 yards are rare. I feel the Remington 7mm-08 is unbeatable, but it's just as true that the .270 Winchester, .280 Remington and .30-06 would also be perfect for my type of hunting. A friend, who hunts in wide open country claims the 7mm Remington Magnum is best for him. That's probably true, because he has taken several deer in the 300-yard range. Actually, the .270, .280 and .30-06 are capable of covering long distances, but the 7mm Remington Magnum appeals to his psychological ego, and that brings us to the crux of the matter. Even knowing that any of those three cartridges can drop a deer at 300 yards, his past success with the 160-grain spitzer boattail, at muzzle velocities around 2,900 fps, gives him confidence, and it's hard to argue against his reasoning.

The 7mm Remington Magnum is a whale of a cartridge for medium size big game. However, deer and bear hunters should be aware that bullet weights below 150 grains can break up on impact, due to

the high velocity of this cartridge. The Speer Manual #11 more or less agrees, suggesting that hunters use the 145-grain Grand Slam bullet to avoid slug break-up.

There has always been some controversy over the 6mms. Many big game animals are taken each year with the Remington 6mm, Winchester .243 and the .240 Weatherby Magnum. The 6mm (243-caliber) has established itself in the deer hunting ranks but, from a ballistic viewpoint, there is a drawback unless the right bullet weight is used. All the 6mm cartridges have sufficient velocity for long range shooting, but velocity is not the problem; it's the bullet weight.

I'm aware that the 100-grain bullet is ideal for antelope hunting, but there's a vast difference between shooting on the treeless western plains and shooting in the forests of Pennsylvania. Nosler's 100-grain Partition bullet offers controlled expansion, though. Its heavy base assures deep penetration. Lighter 6mm bullets, such as the 70- or 80-grain weights, are too fragile to penetrate and do little more than cause surface wounds.

A relative newcomer is the .260 Remington, which is a 6.5mm (.263 diameter). Maybe I'm going out on a limb by saying the .260 Remington is a slightly changed version of the old 6.5 x 55 Swedish Mauser and is close to the 6.5 x 54 Mannlicher-Schoenauer. Being an ex-military surplus firearm, thousands of 6.5 x 55 Swedish Mausers were available in this country. A major drawback in the military version of the Swedish Mauser is its 40,000 psi working pressure. Handloaders must take that into consideration when loading for this ex-military rifle. Custom models built on stronger actions will withstand higher chamber pressures and, at the same time, enhance field performance.

The late Jack O'Connor proved that the .270 Winchester could be successfully used on most North American big game animals. Let's keep in mind, though, that most of us lack the shooting skill Mr. O'Connor

had. He was a superb hunter, too. Because the .270 is based on a necked down .30-06, it's reasonable to assume that the old '06 is no slouch, either. Remington's .280 has ballistics equal or superior to both the .270 and .30-06, but in the field, the .280's more impressive downrange ballistics might not add any significant advantage.

It's wise to be careful when comparing cartridges. No one cartridge seems to have a distinctive edge over all the rest. Fact is, the old .30-30 Winchester has probably taken more deer in Pennsylvania than any other cartridge. It dates back to 1895, when Winchester added it to a line of cartridges being used in the 1894 lever action rifle. The original factory loading was 30 grains of smokeless powder behind a 160-grain soft point bullet that exited the muzzle at 1,970 fps. The .30-30 is still popular for medium size big game and, in a short lever action rifle, is right at home in heavy brush and thick timber.

The right rifle and big game cartridge is as personal as a toothbrush. Although some cartridges are more suited for certain types of hunting, the hunter should stick with a combination that suits his philosophy about hunting. Over the years I've taken six deer with a Ruger Model 77 RSI chambered for the Winchester .308. Because I'm an avid fan of the 28-caliber, though, the .308 (30-caliber) is not my first choice for deer. However, the short, compact Model 77 Ruger RSI (Mannlicher type stock) fits my deer hunting philosophy to the nth degree. I've often considered having the Ruger rebarreled for the Remington 7mm-08.

It's not my purpose here to sway opinions. I've already said that the perfect deer rifle and cartridge is an individual matter. Literally, any conventional big game rifle and cartridge can be used, but every effort should be made to match the rifle outfit to the hunter's needs — both physical and psychological. If your outfit is fun to shoot and gives you confidence in the woods, you have the best December rifle. □

In the Wind

By Bob D'Angelo

Country music singer Dolly Parton's cousin — Coy Parton — shot a state record 880-pound black bear in Craven County, North Carolina. The bear was taken less than five miles from where the previous state record — a 720-pound bruin — was taken three years ago.

Billy Joe Padgett from Jacksonville, Georgia, took that state's new record non-typical buck in November 1998 in Telfair County. The rack has 38 scorable tines, and its Boone & Crockett score after deductions is 248 4/8 points.

The U.S. Treasury recently paid out \$5,800,446 to Pennsylvania for gross receipts from timber sales and recreational fees in fiscal year 1998 on the ANF. By law, 25 percent of all gross national forest receipts is returned to the state where the forest is located. These funds can be used only for schools and roads in the counties (Elk, Forest, McKean and Warren) that contain national forest land.

The U.S. Fish and Wildlife Service predicts that approximately 105 million ducks will fly south this fall. This represents a substantial increase from last year's index of 84 million, and eclipses the 1997 record of 92 million.

The National Wild Turkey Federation has announced a \$1 million 10-year commitment to the National 4-H Shooting Sports Foundation, to provide youngsters with opportunities to learn about shooting in an atmosphere that fosters citizenship, emphasizes safety and develops leadership.

Ever wonder what causes the leaves to change color in the fall? Chlorophyll — which gives leaves their green color — uses sunlight, carbon dioxide, water and other nutrients from the soil to provide the tree with food. Fall begins as the sun's rays become less direct, and a chemical reaction is triggered in the leaves. The food-making process slows and chlorophyll breaks down, causing chemical changes that produce the colors.

Fifty-eight wild boars — the lowest since 1988 — were taken in West Virginia during the firearm and archery seasons in 1998. Biologists attribute the poor harvest to the mast failure in 1997. The lack of mast resulted in the poorest litter production since wild boars were released in 1971.

Canada lynxes from British Columbia were recently reintroduced to Colorado, where none have been seen in 25 years. The big cats remain plentiful in Canada and Alaska, but fewer than 200 are believed to survive in the Lower 48.

There were three hunter firearm incidents — including one fatality — in 1998 in Wyoming. The fatal incident was the first since 1995, and the state has averaged 1.2 hunting related fatalities per year since 1979.

Answers: compass, whistle, topographic maps, pocket knife, mirror, Band-aids, antiseptic, bandages, scissors, tweezers.

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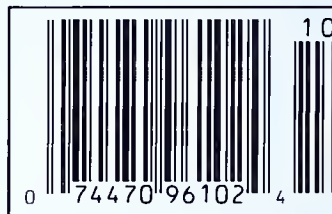
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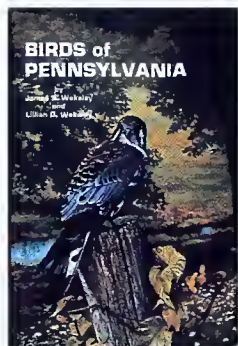
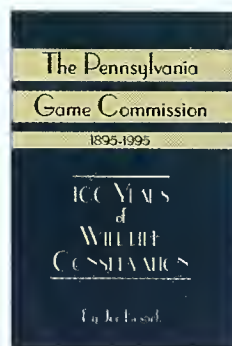
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PA GOVERNMENT PUBLICATIONS



PGC Books

Pennsylvania Game Commission: 1895-1995, by Joe Kosack, covers the agency's first 100 years and includes more than 60 historical photographs.
Price: \$12.26

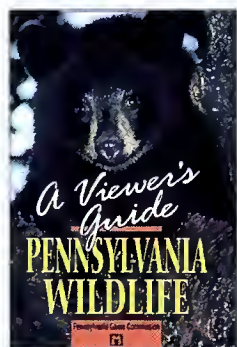


Birds of Pennsylvania, a 214-page hardcover by James and Lillian Wakeley, details birds most commonly found here, plus information on their biology and behavior.
Price: \$12.26

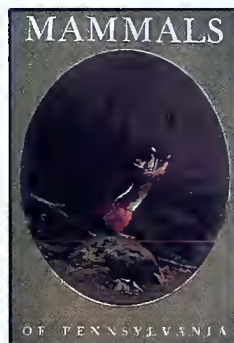
Gone for the Day is a compilation of Game News columns written and illustrated by famed wildlife artist and naturalist, the late Ned Smith.
Price: \$5.66



Pennsylvania Game Cookbook is a collection of nearly 200 recipes for popular, and not so popular, game animals.
Price: \$4.71



Pennsylvania Wildlife: A Viewer's Guide, by Kathy and Hal Korber, features 93 sites noted for their wildlife viewing potential. Directions, maps and photos included.
Price: \$12.26



Mammals of Pennsylvania, by J. Kenneth Doult et.al. profiles the state's mammals and their roles in the state's history.
Price: \$9.43

Pennsylvania Big Game Records, 1965-1986, lists the state's official trophy deer and bear records, along with many stories of exciting hunts.
Price: \$9.43



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Star Barn Owls

FEATURED on this month's cover is "Star Barn Owls," a painting by Barbara Banco of Wellsville, York County. Banco's painting was selected from among 22 submitted by Pennsylvania artists in the contest from which the Game Commission's Working Together for Wildlife fine art print for the year 2000 was selected. This, the 18th painting in the WTFW fine art print series, features two barn owls in the "Star Barn," a 19th century German style barn in southern Dauphin County. The barn is a well known landmark threatened by neglect and development.

Secretive birds, barn owls are found worldwide, in openland habitats where they prey mostly on rats, mice and other small mammals. The birds are rare in Pennsylvania, found primarily in the southern half of the state. Barn owls nest in cavities or manmade structures such as church steeples, nest boxes and, of course, barns. Clean farming practices, modern building designs and the loss of farmlands and other open areas to development threaten this species.

The WTFW program was launched in 1979 to provide a way for nonhunters — and hunters, too — to contribute to the management of owls, such as the barn owls featured here, songbirds, shorebirds and all the other birds and mammals known collectively as nongame.

For the first few years, embroidered patches were sold to fund this program. The fine art print series started in 1983. Through the sale of WTFW prints and patches, the Game Commission makes around \$100,000 a year.

In the past 20 years, and not just through WTFW, bald eagles, peregrine falcons, ospreys and river otters have become more common and widespread in Pennsylvania. In addition to restoring those glamorous or high profile species, strides have been made and habitat management programs enacted to benefit all wildlife.

The need for protecting and managing all our wildlife is as great as ever. If you would like to help, contribute through WTFW.

Like previous editions, an issue of 600 signed and numbered prints is being offered. Image size is 22½ x 15 inches. The price is \$125 each, plus \$7.50 shipping and handling. Framed prints are \$222.50, plus \$15 s&h. Embroidered patches featuring a screech owl will be available soon, for \$4.71 each. Pennsylvania residents add 6 percent state sales tax. Make checks payable to and order from the Pennsylvania Game Commission, Dept. MS, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797, or call 1-888-888-3459, Visa and MasterCard accepted.



BARBARA BANCO'S "Star Barn Owls" captured first place in this year's Working Together for Wildlife contest. Her painting was chosen from 22 submitted by Pennsylvania artists.

letters

Editor:

A friend who has a sporting goods store said that of 10 people who came in to buy muzzleloader licenses, only two did after discovering that the November 18-20 season had been approved only for special regulations areas.

G.W. KASTLER,
HAWLEY

Editor:

Just a note to let you know that there are many of us who are thankful and happy with the seasons we have now and the types of muzzleloaders allowed.

A. ECKERT
HAMBURG

Editor:

The hint about using acetone to remove the name and mailing address from your magazine before passing it on worked like a charm. Many readers may not know that nail polish remover, something just about everybody has around the house, is made of acetone.

T. FRAILEY,
EAST STROUDSBURG

Editor:

Is there any truth to the talk that the Game Commission is releasing coyotes and rattlesnakes to control the turkey population?

ANNONOMOUS,
PITTSBURGH

No. That rumor has been floating around for years. Some have even claimed that the rattlesnakes were tied to helium-filled balloons and then dropped from helicopters.

Coyotes moved into the area as part of natural range expansion, and that would most likely be the case if any rattlesnakes are found there, too.

Editor:

Bob Sopchick's artwork and "Penn's Woods Sketchbook" ranks right up there with the work of the late Ned Smith. Bob's monthly column is the first I check out — after Don Lewis's "The Shooters Corner."

Keep up the good work.

A. BUCK,
SAN DIEGO, CA

Editor:

Last winter I walked the perimeter of a piece of SGL 108, in Cambria County, with my GPS unit to make a map. As I walked around the tract I was surprised at how much of the neighboring land was posted. More people need to appreciate the amount of public land we have for hunting. I suspect that in the future, the only places to hunt will be on state game lands and other public lands. So, keep on purchasing land as it becomes available. You're doing a good job.

A. ZAKOWSKY,
FLINTON

Editor:

Along with your efforts to encourage more youngsters to try hunting, I think you should try to make *Game News* more appealing to

them. The stories could be written by adults who relate their experiences as a young hunter, or perhaps you could run some short hunting tidbits, like your "Field Notes."

J.D. PRAH,
LEWISBURG

Editor:

For me, the love of hunting and the outdoors was handed down by Philip Cirrito. Phil loved hunting and everything associated with it. Unfortunately, last June, Phil died of a sudden heart attack while on duty as a fireman for the Merion Fire Company of Ardmore. It would be a great honor to say good-bye to Phil in the pages of *Game News*, which he loved so much.

J. ZEMINSKI,
CLIFTON HEIGHTS

EDITOR:

Responding to a letter in the September issue, about the number of deer hunting days archers have compared to rifles hunters, you said every hunter is free to hunt in the archery season. How do you consider a nonresident archery stamp going from \$5.75 to \$26 as free?

J. SABINA,
MARLTON, NJ

Any nonresident — or resident — is free to buy a license, there are no limits on numbers, and is free to hunt anywhere hunting is permitted.

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**

Turkeys in the Snow

By Doug Stetler

A GOLDEN DAWN illuminated the treetops and a breeze carried the fresh aroma of autumn. Turkeys were on the menu, and it was the last day of the season. With the thermometer at 48 degrees, everyone left camp dressed for a moderately warm fall day. Little did we know what Mother Nature had in store for us.

Reed, Jim, his son Chris, a first-time fall turkey hunter, and I decided to hunt the ravines and benches on the mountain across the road from camp. The other hunters, Dan, Dave, Scott and George, went to their favorite spots around Grampian in search of turkey flocks.

The dry leaves crunched underfoot. I quickened my pace, knowing

the shuffling sounds would not scare turkeys if they couldn't see me, all the while hoping to get closer to a flock for a surprise breakup. My fast pace allowed me to thoroughly scout the area, but no birds were found.

When the hunters met at mid-morning, no one had located any birds or even fresh scratchings. "Let's head for the big woods," suggested Reed. Everyone agreed. The weather had turned colder, and as we started down a gated logging road leading into one of the most isolated chunks of land in Clearfield County, a few large snowflakes were falling. After we had walked three miles, the snow had accumulated two inches, creating a hushed serenity in the beautiful autumn forest. We headed off in different directions, searching for turkeys.



I searched for tracks in the fresh snow, but finding none, I climbed the mountain. Slowly peeking over a bench near the top, I saw them, a large flock of the big birds. With anticipation, I hustled toward the birds, to break up the flock. The wet, slippery snow hindered my attempt, though, and the turkeys ran off together into a grapevine thicket on a hillside about 150 yards away. The only way I can surprise them now is to come down from the top, I thought. After climbing to the top of the mountain, I slowly descended the point, weaving through and around the thick vines. Then I spotted feeding turkeys only 60 yards ahead.

I moved downhill shouting, this time scattering the flock in all directions. Looking for a good calling place, I chose a curve in a nearby trail with good visibility. But before I got set up, the birds were calling only a short distance away. Quickly kneeling in the tall grass at the edge of the trail, I mimicked their calling. Several of the turkeys had regrouped, however, and because I was imitating a lone bird, the turkeys stood their ground, waiting for it to come to them. I stroked my Quaker Boy box call, making several loud, fast cutts, then flattened to soft, single clucks. My dominant calling convinced the turkeys that the area was secure, and before long my 12-gauge claimed a handsome jake. After tagging, but before field-dressing the bird, I took a moment to admire it. Its escaping body heat turned the snowflakes into melting iridescent crystals. Within minutes turkeys were calling from everywhere, anxious to get back together, while other hunters' shots added to their confusion.

Reed Johnson came by with a big jake. "When two hens came in, kee-

keeping to my Cody glass call, I let them pass, but when this jake stood yelping 20 yards away, I took it," he explained.

Dave Burkhart and Dan Christ soon showed up, each with a bird. "We were down on the flat and I was calling with my mouth call when this hen came in yelping loudly. The .223 Savage downed her without a flutter," remarked Dave.

"Dave kept calling to help me, and a bird came in close, but I didn't take the shot because of the briars between us," Dan said.

"Then four large toms with beards dragging in the snow passed

me only yards away, gobbling as they passed, but I already had my bird and Dan couldn't see them," Dave added.

Gobble-o'bble-obble drifted down from the grapevines on the hill. "That's another hunter with a shaker call," I whispered.

"No, it's a real tom," Reed quickly replied. "Dan, you and Doug try to get closer to the tom and let Doug try to call him in with you out in front."

The tom answered my calls each time but wouldn't budge. I switched to shrieking cries and scratchy yelps on a Penn's Woods PW2 diaphragm call. The tom went silent. Dan spotted a bird moving in, and suddenly a large hen passed. Because of the grapevines between them, though, Dan elected not to shoot. The gobbler never showed.

"Whenever toms gobble, other

*My dominant
calling convinced
the turkeys that the
area was secure,
and before long my
12-gauge claimed a
handsome jake.*

turkeys will silently regroup in the same area, thinking it's safe," I said. "The birds Dan and Dave saw on the flat were also heading for the grapes, and so were the birds I had heard earlier. I'm willing to climb back up the mountain and hit them from the top again if someone wants to go along."

"Let's go," said Reed. We hiked back to the hollow and started the climb to the top, while Dan and Dave set out to try their luck on the flat again.

When Reed and I reached the top we found George Pedmo Jr., who had heard the tom gobbling and had made some soft clucks, hoping the bird would walk up to him. It didn't. George joined Reed and me as we spread out and started down the sides. I saw the turkeys first and rushed at them, whooping and hollering. Some flew but most ran in the direction of George and Reed. It wasn't long until George shot and missed, but he did break up the flock again. "That was a beautiful sight, all those black beauties crashing up through the trees with snow, leaves and feathers flying everywhere," said George.

Reed and George went in the direction most of the turkeys had flown because the hillside had been disturbed twice, and they feared the birds would not regroup there

until dark. I went to find Jim Howard and his son, Chris. As I searched, I stopped often and called before moving from one vantage point to the next.

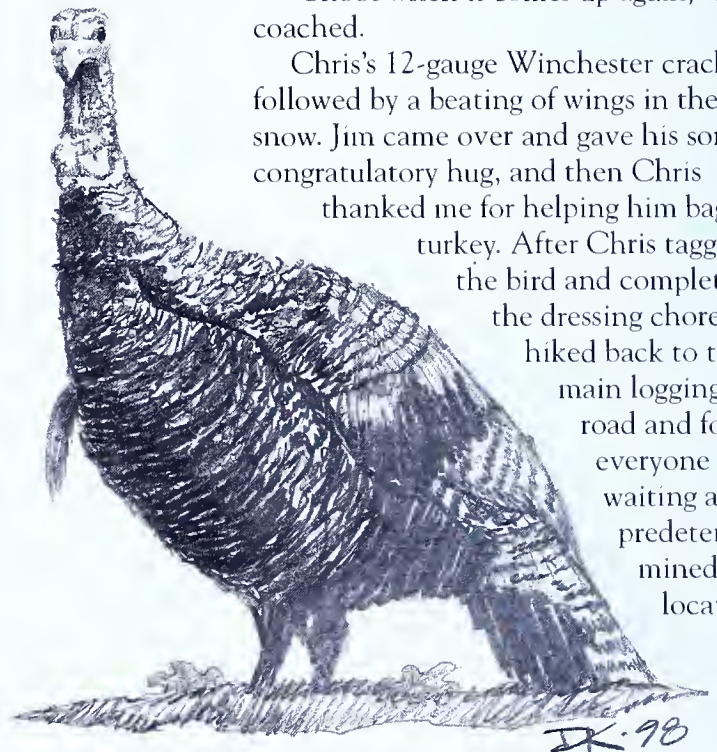
Kee, kee, kee, keeee came from a young bird, then loud scolding clucks from an older hen on the bench just below. I quietly slipped to the edge of the ridge in the soft snow, peeked down, and saw another flock of feeding turkeys. Some were close to the short drop-off where I was kneeling, so I left my gun and turkey and ran into the startled flock, scattering them in all directions.

Jim and Chris were hunting a short distance away and came over to check out the ruckus and found me. Returning to get my gun and bird, I said, "Let's set up close to the bench and I'll call those rascals in. Chris went with me and Jim positioned himself a short distance away. My lost calls on the diaphragm were quickly acknowledged by calls from lonely turkeys. One bird's head peeked above the knoll below. "See it?" I whispered.

"Yeah," Chris replied.

"Shoot when it comes up again," I coached.

Chris's 12-gauge Winchester cracked, followed by a beating of wings in the snow. Jim came over and gave his son a congratulatory hug, and then Chris thanked me for helping him bag his turkey. After Chris tagged the bird and completed the dressing chore, we hiked back to the main logging road and found everyone waiting at the predetermined location.



The harsh snowstorm and everyone's soaked clothing made the decision to continue the hunt a tough one, but spirits were high. We decided to build a fire to warm up and then go after the turkeys again.

Reed, Chris and I started the 4-mile trek back through five inches of snow, carrying four turkeys. We hoped to get permission to drive back down the gated road, so we could exit safely at quitting time. When we reached camp we were shivering, muscles were cramping and bones were aching.

The hunters remaining in the woods got a fire started, and the overhead hemlock branches, laden with snow, provided a cozy windbreak. "The birds sure are talkative today," remarked Jim.

"It's probably the storm," replied Dan. "Young birds are always anxious to reassemble with the dominant hen and their flock mates when scattered. However, today is their first snowfall, which makes them even more concerned about companionship."

Then Dave cut in, "I don't know why, but sometimes when those longbeards see a little snow, they gobble like crazy."

The storm weakened and a beautiful brightness engulfed the forest. Turkeys could be heard all around the hunters, so Dave reluctantly kicked snow on the fire and he and Dan slipped toward a gobbling tom. Jim and George headed after another flock of birds.

After eating a few bowls of hot chili, Chris stayed at camp to rebuild a fire in the wood burner, while Reed and I contacted the landowner for permission then drove down the gated road. We found the other hunters still without birds, but happy to know that the vehicles were there. George teamed up with Reed while Jim and I got together for one last round with the turkeys. Dave wasn't feeling well, so he headed for the truck, and Dan went to try his luck alone.

Reed and George sat down above a flat of large boulders and hemlock trees. Reed's yelps on his Cody glass call brought an immediate response, but the turkeys would not leave the security of the hemlocks. Although the snow on the ground had been melting, snow began falling again and soon six inches were on the ground.

I made some lost yelps, ending with loud calls on the diaphragm call. An instant reply came from two turkeys hiding in a field of tall grass, but when their necks stretched for a look they spotted us and took to the air. Jim quickly shouldered his 12-gauge but missed the passing bird. The turkeys were gliding above Reed and George when Reed's calling caused one to land in a tree directly overhead. George's 12-gauge Winchester cracked and a jake dropped.

As the last of the tired, soaked hunters crawled into the 4x4, I asked Dan how he made out. "A turkey was answering my calls but wouldn't leave the mountain laurel to come on in," he said.

When we reached camp we found another turkey on the meatpole. "Where did you get the jake?" Reed asked Scott Graham.

"I was walking into an area where a flock had been broken up and this turkey flushed from a brush pile like a pheasant," replied Scotty. "My Ithaca 12-gauge dropped the bird stone dead."

"That makes a camp record of six turkeys," Reed said.

This day remains special to the hunters from Bear Pen Hollow Camp, not only because of the turkeys taken, but also because of the comradery of the members and their perseverance together in an autumn snowstorm. □

Backdoor Bruin

By Thomas Willson

THE 1988 bear season was different from past seasons for several reasons. My younger brother, Ray, was to join Gary Patterson and me. Dad wouldn't be with us, because he was going to be deer hunting in New York. And, Ray and I had decided to camp rather than drive back and forth during the 3-day season. Gary planned to join us for a 4 a.m. breakfast and some last minute planning on opening day.

The Saturday before the season, Ray and I scouted a new area and planned to return on opening day, but several inches of rain fell on Sunday night, making Schrader Creek too high to wade. On Monday morning we agreed to go to Middle Mountain, where we had had several close encounters with bears in the past.

This day turned out to be like other years. The bears were there, but seeing them in the thick mountain laurel was nearly impossible. Late in the afternoon, I jumped one from its bed, but didn't see it; the story was told by

its tracks in the snow. The bear had gone over the rim and back into heavy laurel on the mountainside. It was too late in the day to follow, so I dropped off the mountain to meet Gary and Ray.

Tuesday morning we awoke to cold temperatures and a fresh skiff of snow. As Ray started breakfast, we found that the eggs had frozen and split open. Then, the coffee pot boiled over and put out the stove. Ray thought it was a good omen.

A short time later we were hiking up the mountain. We planned on hunting the area around the head of the run we had scouted the previous Saturday. Gary peeled off to the west while Ray and I continued south. We climbed in the dim morning light then stopped to rest. While preparing to continue up the mountain, I heard Ray give a low whistle. He excitedly waved me forward, pointing to bear tracks we had walked over. The fine powdery snow had to be studied for several minutes before we could tell in which direction they were headed.

I had hunted here only once before, so I had to use my topo map and compass to figure out where the bear was going. We found our position on the map by contours, landmarks and the direction of the road. We could then see that the bear was heading for a swamp. With the wind blowing from the west, we circled south and then east before turning north to approach the swamp across the wind. As the swamp came into sight below us, we realized the wind had died down.



We agreed to circle the swamp in opposite directions, to look for tracks entering the 4-acre tangle. Soon after splitting up, I found tracks heading into the swamp. After following them for a few yards, I was amazed to see a parallel set of tracks, indicating that there were two bears. I quietly worked around to meet Ray, hoping he would report that no tracks left the swamp. When we met, I told him what I had seen. He had not found any tracks leaving. He was impressed with the area and decided to post on the other side of the swamp. I backtracked a hundred yards or so and nestled up to a cherry tree where I could see a ridge of open woods to my left and a long fringe of hemlocks extending around to the swamp outlet on my right. Interspersed openings under the hemlocks allowed me to see the huckleberry brush in the swamp.

As the sun climbed higher I knew the snow would soon melt. It was a beautiful, sunny day. A puff of wind brushed my face from the direction of the swamp, and a short time later I heard something leaving the swamp in a hurry. It left on the other side of the outlet, just out of sight.

As I settled back down I wondered if the wind had betrayed Ray's presence on the other side, sending a bear down the gully. Then, from the interior of the swamp, I heard a small twig break and then watched as a bear stepped into view. When it turned to angle toward me, I pulled the trigger. After recovering from the recoil of the 7mm-08, I saw one leg flip up, a small cloud of steam billow up from the bear's mouth, then all was still. I uttered a long, loud cry, and shortly after the echo died away, Ray hurried into sight. I told Ray to keep an eye on the bear until I came in from the side to make sure it was finished. It was.

We filled out my tag, took photos and, while field-dressing, discussed the 2-mile drag off the mountain. We also replayed the hunt over and over, telling each other details and what we thought caused the

bear to move. We decided that the wind had given away Ray's presence, causing the smaller bear to leave the swamp in a hurry. The male that I shot was sneaking out the "backdoor." If not for the snapping of the twig, I may have never seen it.

After tying my drag rope around the bear's neck we found a stout tree branch about four feet long and tied the other end of the rope to it. Slinging our unloaded rifles across our backs, we stepped into the harness. After a short uphill stretch, we had a mostly downhill pull. We stopped about every 20 yards, caught our breath, looked at the bear and just said, "man."

The drag took about three hours. At the gate, the terrain allowed us to back Ray's pickup right up to the bear, and we slid it into the back. We took it to the check station at the Monroeton Rod and Gun Club and discovered that the bear weighed 330 pounds. Later, the skull measured 18-14/16, and Game Commission officials said the bear was six years old.

Before driving back to camp, I called home to tell of our success. Late that night we heard a vehicle pull in. Upon hearing about our bear, my dad had driven down from New York to see it and to spend the night. Gary, who had left the woods early to attend to some business on Tuesday, didn't know we had bagged one. When he drove in Wednesday morning, we quietly waited in the camper for his reaction. "Holy Hannah! Who killed the bear?" he said loud enough to wake up the rest of the campground.

If I could have one wish to go along with the bear, it would be that the thrill of that hunt could have been shared with my dad and Gary firsthand — every sight, sound and smell. For them to be able to marvel at the bear and just say, "man." □

1999 Elk Survey

By Rawland Cogan

PGC Wildlife Biologist



Hal Korber

THE NUMBER of animals in a population is basic information wildlife biologists need to effectively manage our wildlife resources. To better understand the dynamics of wildlife populations an analogy between the dynamics of a pond and animal populations may be helpful. Water flows into the pond (births) and out (deaths), and the relationship between these two factors determines the water level (animal numbers). The water level is also influenced by precipitation (immigration — ani-

mals that enter the population) and evaporation (emigration — animals that leave the population).

Wildlife populations are more complex, but the analogy is helpful. When wildlife biologists conduct surveys they are taking a “snapshot” of the population at that particular time of the year, to determine the number of animals and the sex and age of each. We know that animal populations change continuously, but this “snapshot” provides valuable information upon which management decisions are based.

Pennsylvania’s elk survey is a combined ground and aerial survey, and is unique because we attempt to count every elk. This method is practical for us because Pennsylvania’s elk range is relatively small, and because elk are large, gregarious (herd) and tend to use more open areas.

Radio-Collared Elk

Throughout the year we immobilize and mark elk with radio-collars. These collared animals represent a known number of “marked” elk. Prior to actual helicopter flights, we use an airplane equipped with a telemetry receiving system to locate each

Table 1. 1999 aerial elk survey results within the traditional elk range based on marked-resighting population estimate.

Sex and Age	Number		
	Observed	Estimated	%
Branched-antlered bulls	35	60	14
Spike bulls	16	29	7
Adult cows	139	238	58
Calves	49	84	20
Unknown	4	6	1
Totals	243	417	100

Table 2. Combined 1999 aerial and ground survey results in the expanded elk range (Cameron, Clearfield, Clinton, Elk, Potter, and Tioga Counties).

Sex and Age	Number	
	Observed	%
Branched-antlered bulls	11	18
Spike bulls	6	9
Adult cows	16	25
Calves	8	13
Unknown	22	35
Totals	63	100

“marked” elk. This information is not given to observers in the helicopter prior to helicopter flights.

During transect flights, observers record the sex, age, number of elk and the number of radio-collared elk they observe. Following helicopter transect flights, the number of marked elk located by the plane is compared to the number located by the helicopter crew. For example, if we know three radio-collared elk were in survey unit 1, and that the helicopter crews observed two of them, then we know at least one (the marked one) was missed. Using telemetry equipment, helicopter crews locate the missed marked elk and try to determine if any other, unmarked elk were also missed.

The number and location of radio-collared elk seen and missed by helicopter crews are both recorded. This provides an index for estimating the population. This procedure is known as a mark-resighting estimator. The same technique is used to estimate our bear population, ex-

cept that bears are marked with ear tags instead of collars, and the bears are harvested and taken to check stations instead of being observed.

Results

The latest elk survey was conducted January 19 and 20, 1999. Helicopter crews flew the southern range on January 19 and the northern and expanded range on January 20. During the transect flights, 23 elk were radio-collared (marked) and 13 were seen. Sighting probability of radio-collared elk was 56% (n=13). In other words helicopter crews missed 10 radio-collared elk. Elk that are missed by helicopter crews most often are in dense

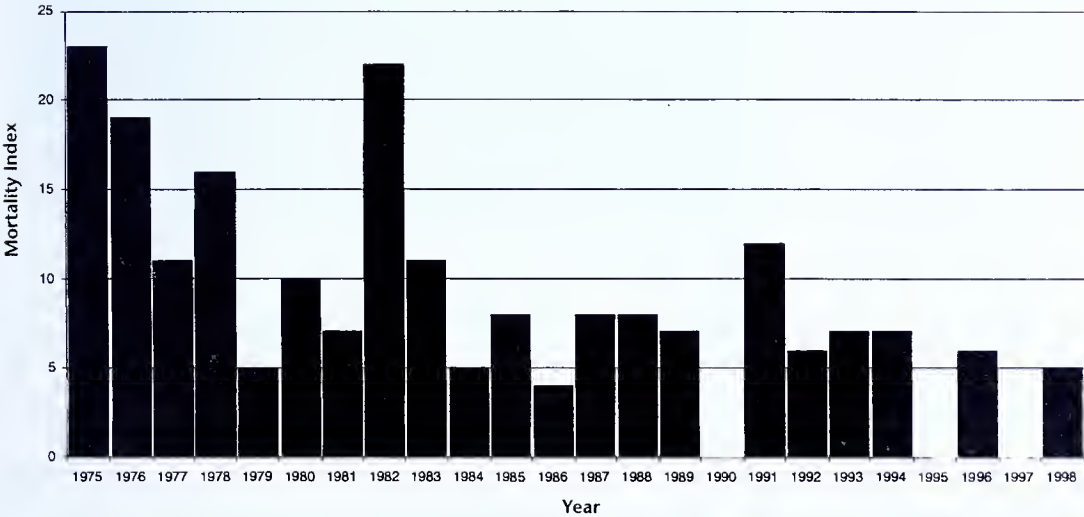
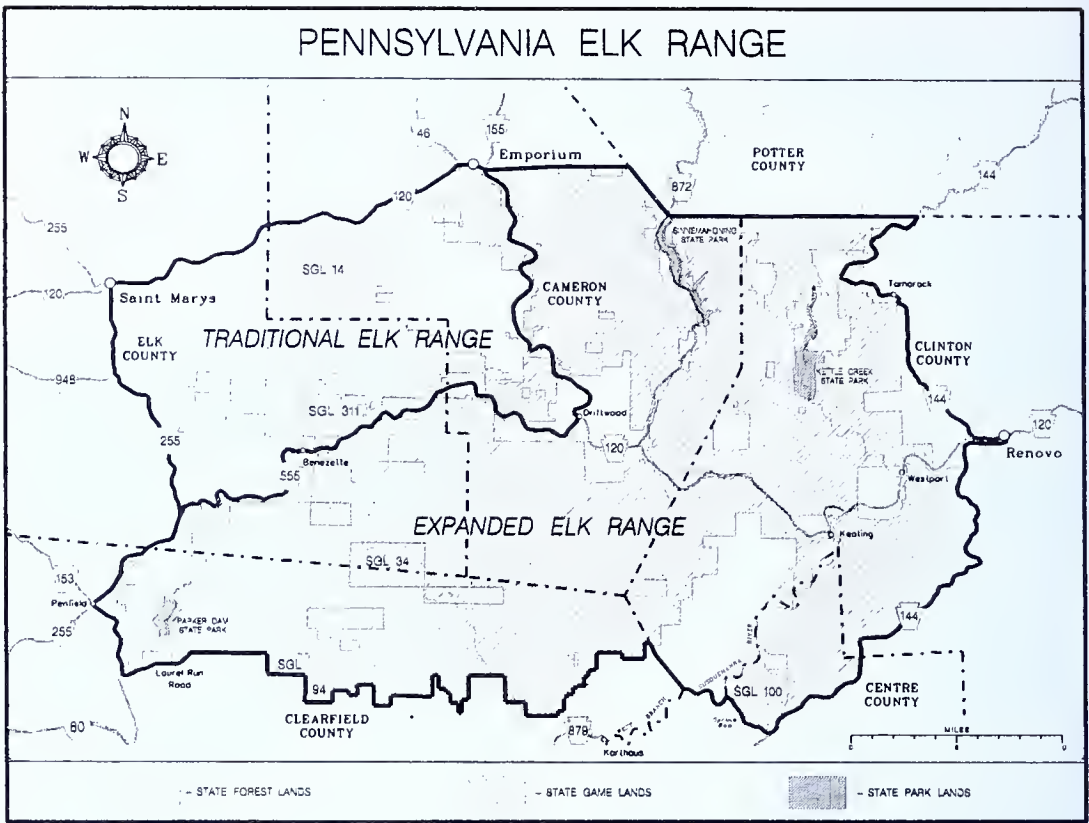


Figure 1 Calculated mortality index for Pennsylvania's elk population from 1975-1998.



vegetative cover, such as pine, hemlock or mountain laurel. Crews sighted 243 elk during transect flights. The mark-resighting estimator calculated 417 elk in the traditional range (Table 1). The minimum verified number of elk (the number of elk seen plus the number of marked elk missed) in the traditional range was 258.

Ground and aerial searches outside the traditional elk range were conducted using radio-telemetry and elk "sign" in the expanded range, and we recorded a minimum of 63 elk. Elk were located in Clinton (27), Cameron (22), Clearfield (9), Elk (3),

Potter (1) and Tioga (1). Simply adding the 63 elk known to be outside the traditional range (Table 2) to the estimate of 417 (Table 1) within the traditional range, gave us a total of 480 (Table 3) elk estimated to be in Pennsylvania.

Table 3. 1999 aerial survey results within the traditional elk range based on mark-resighting population estimate (n=23) and ground survey results in the expanded elk range.

Sex and Age	Number		
	Verified	Estimated	%
Branched-antlered bulls	54	71	15
Spike bulls	24	33	7
Adult cows	156	255	53
Calves	58	92	19
Unknown	29	29	6
Totals	321	480	100

Mortality

From February 10, 1998 to January 20, 1999, 27 elk were known to have died (Table 4). Vehicular collisions including

Table 4. Causes and number of known elk mortalities in Cameron and Elk counties, from 10 February 1998 to 20 January 1999.

Cause	Males age in years			Females age in years			Unknown Sex age in years			Total
	<1	1-2	>2	<1	1-2	>2	<1	1-2	>2	
Highway			2	1	1					4
Train		1				2				3
Illegal			4				1			5
Crop Kill			1			2				3
Accidental			1	1						2
Old Age						1				1
Brainworm						1				1
Unknown		1	4	2		1				8
Totals	0	2	12	4	1	7	1			27

autos (4) and trains (3) was the leading cause of known elk deaths during the year. Five elk killed illegally were recorded. Illegal kills that year were the most since 1995, when six elk were poached. Only three elk were killed for crop damage dur-

Mountain Elk Foundation, and other conservation groups since 1993.

Since record keeping began in 1975, the 27 elk known to have died in 1998 is second only to the 35 known to have died in 1982. Relative to the

total elk population, however, mortality rates have decreased (Figure 1). In 1982, for example, the estimated elk population was 121 and 35 deaths had been recorded. The mortality index for 1982 was 22 percent (35/156). The mortality index for 1998 was 5 percent (27/507). Since 1992 the elk population has increased an average of 12 percent a year.

The mortality index, however, has averaged only 6 percent. Furthermore, I believe this index is conservative, because our effort to verify elk deaths has increased dramatically since 1975. □

Hal Korber



PENNSYLVANIA'S elk survey is a combined ground and aerial survey, and is unique because we attempt to count every elk. During transect flights, observers record the sex, age, number of elk and the number of radio-collared elk they observe.

ing the year. I believe that the reduction in the number of elk killed for damaging crops is a direct result of the habitat enhancement and fencing program promoted and supported by the PGC, DCNR, Rocky



Nick Rosato

Forecast: Cold and Windy

By Eugene R. Slatick

THE OUTDOORS has taken on a chilly setting now that the cold weather has arrived, but that doesn't stop us from enjoying the new season. Although we may not be designed for the cold, we can handle it well. Our body keeps its internal temperature safely at about 98.6 degrees Fahrenheit, even when the outdoor temperature falls well below that. We can help, of course, by dressing for the cold.

We take for granted the remarkable system of temperature sensors in our skin that keeps in constant touch with the body's thermostat in the brain. Working together, they direct the flow of blood as it cycles heat all over the body and directs the cells when they need to produce more heat.

Most of our heat is generated in the muscles and organs in the body. Much less heat is generated from the arms, legs and neck. Almost none comes from the hands, feet, nose and ears, which are warmed by blood from other parts of the body.

When you become cold the brain constricts the skin's blood vessels, so that the skin receives less heat, saving it for vital organs. Your fingers and toes ache due to the rationed blood supply. Your cheeks, nose and ears are tinged pink because the chilled surface blood vessels can't release oxygen to the tissues. With blood vessels constricted and more blood forced into the body, raising blood pressure, the body needs to reduce its fluid volume, and so it gives you the urge to visit the restroom.

Although the body may slow down the blood flow to your extremities, it keeps the head and brain well supplied. Because

about one-third of the body's heat can be lost through the head, the body apparently expects you to do something about it, like wear a hat.

You get "goose bumps" when the small hairs on your body stand on end in an attempt to create an insulating layer of air. This might have helped our hairy ancestors, but it doesn't work for us. You shiver when the skin temperature falls below 75 degrees. Shivering itself won't warm you, but it does stimulate your metabolism into producing more heat. When the cold begins to penetrate, you can sometimes "get the blood moving" with energetic measures, such as stomping your feet, opening and closing your fists, or swinging your arms.

Smoking doesn't help because nicotine slows the supply of warm blood to the arms, legs and feet. What about hot coffee or tea, or soft drinks? While the hot drinks will warm you, the caffeine in them acts as a diuretic, causing fluid loss through frequent urination. It's a good idea to drink other liquids in addition to these, because you can become dehydrated in cold temperatures, as dry, cold air doesn't hold as much moisture as warm air. In fact, the air you breathe in might be exhaled with more moisture in it because of water absorbed from the lungs.

Do alcoholic beverages warm you? Yes and no. Alcohol gives a sense of warmth because it dilates blood vessels and flushes the skin with warm

blood. But the warmth is being robbed from vital organs, so in the long run alcohol cools the body. Meanwhile, the alcohol is fooling the body into thinking that it is warm, and depressing its ability to shiver, canceling one of the first signs of hypothermia.

Hypothermia — a dangerous condition — develops when the body loses heat faster than it can be pro-

Other cold injuries are frost nip and frostbite. Frost nip develops when the skin's surface freezes, but it is quickly relieved by warmth. With frostbite, both the skin and deeper tissues freeze. It is treated with gentle rewarming and requires medical help.

Keeping comfortably warm in cold weather requires teamwork between your body and common sense. Because the body

handles its part extremely well, it's up to you to complete the task by dressing sensibly.

You can influence the body's climate control by dressing in layers. The idea of layering clothes for the cold is far from new. The Alpine Iceman found in melting ice in Europe a few years ago was dressed in layers when

he made his final trek some 5,300 years ago. His "fabrics" were animal skins, fur and grass.

Wearing clothes in layers has two main advantages. First, it creates layers of trapped air that holds in body heat. Second, clothes can be added when you become cold, or shed (or unbuttoned or unzipped) when you become too warm. To be effective, the layers must be loose enough to allow body moisture to escape.

The first layer, a thin one that provides some insulation, serves mostly to transfer moisture away from the skin. The next layer, which is thicker, should provide warmth and wick body moisture away, so it can evaporate. The third layer, while also trapping body heat, provides protection

WIND CHILL TABLE

Temperature (degrees F)	Wind Speed (MPH)					
	5	10	15	20	25	30
Wind Chill Temperature						
30	27	16	9	4	0	-2
20	16	4	-5	-10	-15	-18
10	6	-9	-18	-25	-29	-33
0	-5	-21	-32	-39	-44	-48
-10	-15	-33	-45	-53	-59	-63

Guide to wind speeds: 4-7 mph, felt on face, rustles leaves, moves wind vanes; 8-12 mph, moves leaves, extends flags, flaps clothing; 13-18 mph, moves small branches, lifts leaves; 19-24 mph, sways small trees in leaf, force felt on body; 25-31 mph, moves large branches, makes wires whistle, affects walking.

duced. At first, the person feels chilled all over. If that warning is ignored, and the body's temperature falls below 95 degrees Fahrenheit, the person becomes fatigued, lethargic and confused; speech is slurred and the pulse weakens. When the body temperature drops to around 90 degrees Fahrenheit, the condition becomes life threatening and prompt medical attention is needed. Until help arrives, the hypothermia victim must be kept comfortable and awake, with warm clothes and warm drinks. Aging can hamper the body's ability to generate heat, making it prone to hypothermia, even indoors at temperatures below 70 degrees Fahrenheit.



from wind, rain and snow. In below-freezing temperatures, you'll need an insulated outer garment.

Your feet will stay warmer if you don't wear too many socks in undersized boots, because they'll be tight and reduce the blood flow. Gloves of wool or wool substitutes inside leather gloves make a comfortable cold weather combination, but mittens with a nylon shell and wool inside are better for extremely cold temperatures. Lightweight gloves worn under the mittens will keep your fingers from freezing when you remove the mittens to handle cold objects, especially metals. The important job of keeping your head warm can be done with a knit hat or insulated earflaps, although extremely cold conditions call for a balaclava, a knit cap covering the head and neck.

A variety of fibers and fabrics are used in cold-weather apparel. Cotton, however, is not a good choice because it retains moisture while drawing heat away. Wool, on the other hand, is widely used; it is a good insulator even when wet. Nylon, another good insulator, is generally blended with other fibers when worn next to the skin. It is often used as outer material in shells and when a windproof layer is needed to contain

down or other insulating material.

Polyester, an acceptable substitute for wool, is commonly found in long underwear, shirts and pants; it absorbs little moisture and works well as an insulator. Polypropylene, used in socks, gloves and other apparel, is a good insulating material and absorbs no moisture.

High-loft insulators are relatively thick, lightweight insulators. Down is an example, although its insulating ability decreases when wet. Polyester fiberfill is similar to down. Thin

insulators are popular because they require half the thickness of high-loft insulators to provide the same degree of insulation; however, they offer no weight advantage, only reduced bulk.

Shell fabrics forming the outer, protective layer of the cold-weather system must be windproof, breathable, abrasion resistant and water resistant. They usually are made from lightweight nylon or nylon/cotton blends. Waterproof/nonbreathable fabrics, which have been treated with neoprene or polyurethane, usually aren't worn over cold-weather garments be-



GUIDE TO COLD-WEATHER CLOTHING

Long Underwear: 40 to 32 F, lightweight wool or wool substitute, 32 to 0 F, medium-weight wool or wool-substitute; 0 to -40 F, heavyweight wool or wool-substitute. Lightweight wool sweater substitutes for top of long underwear.

Shirt: 40 to 32 F, lightweight wool or wool substitute, 32 to -40 F, medium-weight wool or wool substitute. Turtleneck with short zipper allows ventilation.

Jacket/Shirt: 40 to 0 F, medium-weight wool or wool substitute; 0 to -40 F, pile. Can be worn over lightweight shirt and long underwear top; sweater substitutes but is less durable.

Pants: 40 to 32 F, polyester/cotton work pants or lightweight wool, 32 to 0 F, medium-weight wool or wool substitute; 0 to -40 F, heavy-weight wool or pile.

Shell Parka and Pants: 40 to 0 F, waterproof/breathable fabric or waterproof/nonbreathable fabric and windproof/breathable fabric combined; 0 to -40 F, waterproof/breathable fabric or windproof/breathable fabric.

Insulated Parka: 32 to 0 F, 8 oz/yd² polyester fiberfill, 6 oz/yd² thin insulation or medium-weight down, 0 to -40 F, 10 oz/yd² polyester fiberfill, 9 oz/yd² thin insulation, or heavy-weight down.

Insulated Pants: 0 to -40 F, 8 oz/yd² polyester fiberfill, 4 oz/yd² thin insulation, or lightweight down.

Boots: 40 to 32 F, insulated leather workboot or uninsulated rubber/leather shoepack; 32 to 0 F, rubber/leather shoepack with felt liners; 0 to -40 F, U.S. military vapor barrier boot.

Gloves/Mittens: 40 to 32 F, leather glove with wool insert, 32 to 0 F, nylon or leather mitten shell with wool or wool substitute insert; 0 to -40 F, insulated mitten shell with wool or wool substitute or mitten liner.

Hats: 40 to 32 F; cap or knit hat; 32 to -40 F, insulated cap or knit hat and balaclava.

Notes: F= degrees Fahrenheit; oz/yd²= ounce per square yard. Some persons require more insulation than is suggested here. Add layers when in doubt.

cause they prevent body moisture from escaping; however, they may be necessary for rain in near-freezing temperatures to keep inner clothing dry. Waterproof/breathable fabrics are a better choice; their micropores allow body moisture to pass through while keeping out large water droplets.

Once you're outfitted for the cold, the body needs to be stoked with food to keep producing heat. Carbohydrates are important because they are metabolized more easily than fats or proteins.

These days, weather reports of the "wind chill" remind us that moving air adds a freezing touch to the cold. Whether cold air blows on you, or whether you create it, as when skiing or snowmobiling, the moving air

sweeps heat away from exposed skin. In a wind of 10 miles per hour, 30 degrees Fahrenheit feels like 16 degrees; doubling that wind speed has the effect of dropping the temperature to four degrees. The wind chill table with this article gives an indication of how cold you are likely to feel at various combinations of temperatures and wind speeds. Even though the table doesn't take into account your health, the heat you absorb from the sun, the heat you lose by physical exertion, or how much you have become adapted to the cold, it's worth checking when you are heading outdoors.

If you spend enough time in the cold, your body adjusts to it by producing heat at a higher rate. When you are acclimatized, temperatures that seemed penetrating when the cold weather first arrived will seem relatively mild before it leaves. □

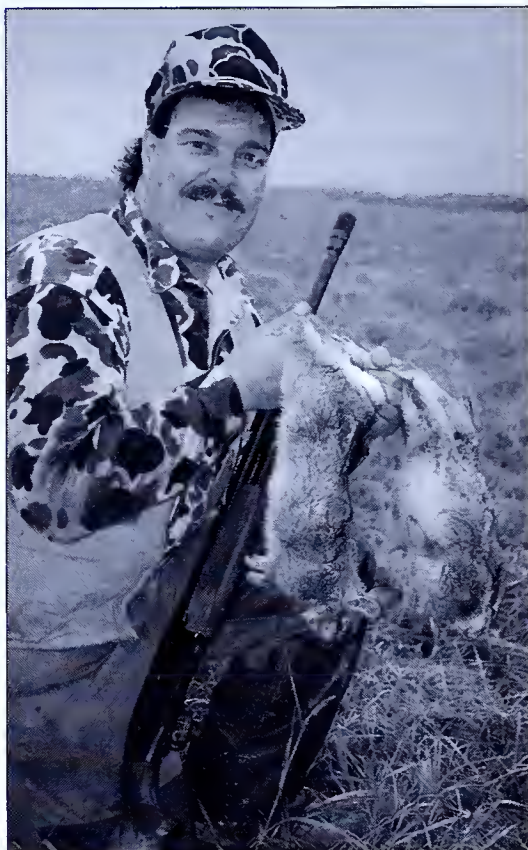
Rabbits in the Rows

By Vic Attardo

OF ALL the rabbits I've cleaned, I don't recall ever seeing a single kernel of corn in a bunny's stomach content. Getting to the cob of the matter, corn is simply not a gourmet item for a cottontail. But as any farmer will tell you, rabbits love to hide in and around cornfields. Before the crop is harvested, the tall stalks offer excellent cover for feeding rabbits. And after the harvest, when only broken stems remain, bunnies still take advantage of the limited cover.

Besides security, rabbits are attracted to cornfields because of the plants that thrive inside the rows and along the edges. Herbaceous weeds — those that grow in a single season and do not possess a woody stem — are the rabbits' preferred fare. If a cornfield contains a mix of these weeds, such as crabgrass, clover and plantain, there's a good chance the terrain will support its share of cottontails. Still, not any old cornfield or farm is a good place to hunt for rabbits. Picking a fertile cornfield is a lot like finding a healthy breakfast cereal. There are a lot of boxes on the shelves, but not all are created equal.

When looking for farms to hunt, I prefer those where the fields are broken into smaller plots, a maze of maize if you will. The presence of hedgerows, tree lines and fencerows adjacent to a patchwork of cornfields usually signals good hunting. But if the fields have been consolidated into a huge plot, where the corn stretches as far as the eye can see, the cottontail population is likely to be low. This large-scale farming is one reason rabbit populations have declined across the country. The use



of weed killers in and around cornfields has also contributed to the decline.

But all is not lost for the fast scampering rabbits or the hunters that pursue them. With fewer farms and fewer farmers than only a decade ago, an often overlooked agricultural practice has produced a boon in rabbit populations in certain areas of the state.

These days many farmers are working land they have leased from other property owners. As a result, the renting farmer frequently tends scattered tracts some distance from his base of operations. A peculiar effect of this type of arrangement is that harvesting is not accomplished as timely, or

as regularly, as it is on larger, single-owner farms.

Farmers have told me that after harvesting one parcel they must then move their equipment to another site, and that takes time. Also, the weather often intervenes, causing further delays. The upshot of leased farming is that some fields are gleaned later in the season than others. The corn is left on the stalks longer while untrampled weeds continue to grow. In the last couple of seasons, I've found that these "delayed harvest" fields are proving to be prime spots for fall bunnies, particularly in the southeast and southwest corners of the state.

One cautionary note must be injected here regarding regulations concerning hunting in unharvested fields. You may have already obtained permission to hunt on a farm and feel that you are welcome to go anywhere you want, but under the state code, it's unlawful to hunt in unharvested buckwheat, corn, sorghum or soybean fields without permission of the owner or op-

erator. In Pennsylvania, we have a wonderful Farm-Game Program in which some 2.5 million acres on more than 21,000 co-operating farms are open to hunters. Farmers signed up in this program may post signs warning hunters to stay out of unharvested fields, and these warnings must be obeyed. But in my experience, the posted fields are either for newly planted crops or else more delicate plants. Corn is a sturdy crop, and I have not had any problems getting permission to hunt in unharvested cornfields.

After selecting a viable farm and obtaining permission, how do you rouse rabbits from their cover? Hunting with a dog is your best option. A well-trained beagle will nose into the thickest hedgerow and prod a cottontail to break cover. But if you don't own a dog, the next best thing is a good hunting partner.

When working with a cohort to flush cornfield rabbits, the manner in which the two hunters patrol the parcel is important. My favorite approach is for one hunter to walk along the edge of the cornfield while another walks a few rows inside the stalks. The reasons for this are clear when you picture the typical cornfield and hedgerow.

Around the common cornfield there will be a gap of several feet between the thicket and standing stalks. This gap provides a good walking path for one hunter while also giving this shooter a sizable window of opportunity. Bunnies spooked from the sideline thickets invariably make their first line of escape up the gap between the brush and corn, then jump into the cornfield or back into the brush. If one hunter is on the edge of the field, all this action will be in front of him. The hunter inside the field has a chance of surprising the cottontail that crosses into the corn.



BESIDES COVER, the thing that attracts rabbits to a cornfield is the plants that thrive inside the rows and along the edges. If a cornfield contains crabgrass, clover and plantain, there's a good chance you'll find bunnies.

Rabbits found dining inside the cornfield are another matter, and anticipating how they'll react is nearly impossible. The interior hunter might have a brief and challenging shot as the rabbit runs deeper into the stalks. But, on the other hand, if the cottontail inside the rows breaks for the open lane and the thicket, the exterior hunter will have an excellent chance. As rabbits inside the corn sometimes delay going into full flight until they're running out of cover, the interior hunter will also have a good shot when approaching the end of the plot. The issue of how deep the interior hunter works inside the cornfield depends primarily on the density of the crop, but he should not wander towards the edge of the field.

For obvious reasons, communication between partners is necessary in these circumstances. While practicing this 2-man rabbit hunt, I like to keep one man ahead of the other by some 5 to 10 yards. But staggering is not done haphazardly. When working an unharvested field, I prefer that the man inside the cornfield be ahead of his fencerow colleague.

To understand this concept draw two squares on a piece of paper. On one square place a dot outside the box on the left-hand side at a point midway along its length. Next place another dot inside the box, near the edge, at a distance somewhat ahead of the first dot. In the other box reverse the position of the two dots.

The first box is my preferred way to conduct a hunt: the outside shooter is behind the hunter who is in the corn. In terms of safety, notice how the staggered position gives the fencerow hunter a clear understanding of where his partner is.

For safety reasons, the outer hunter should not take a shot into the cornfield, especially if it's directly to his side. He certainly should not shoot up through the cornfield. At the same time, the interior

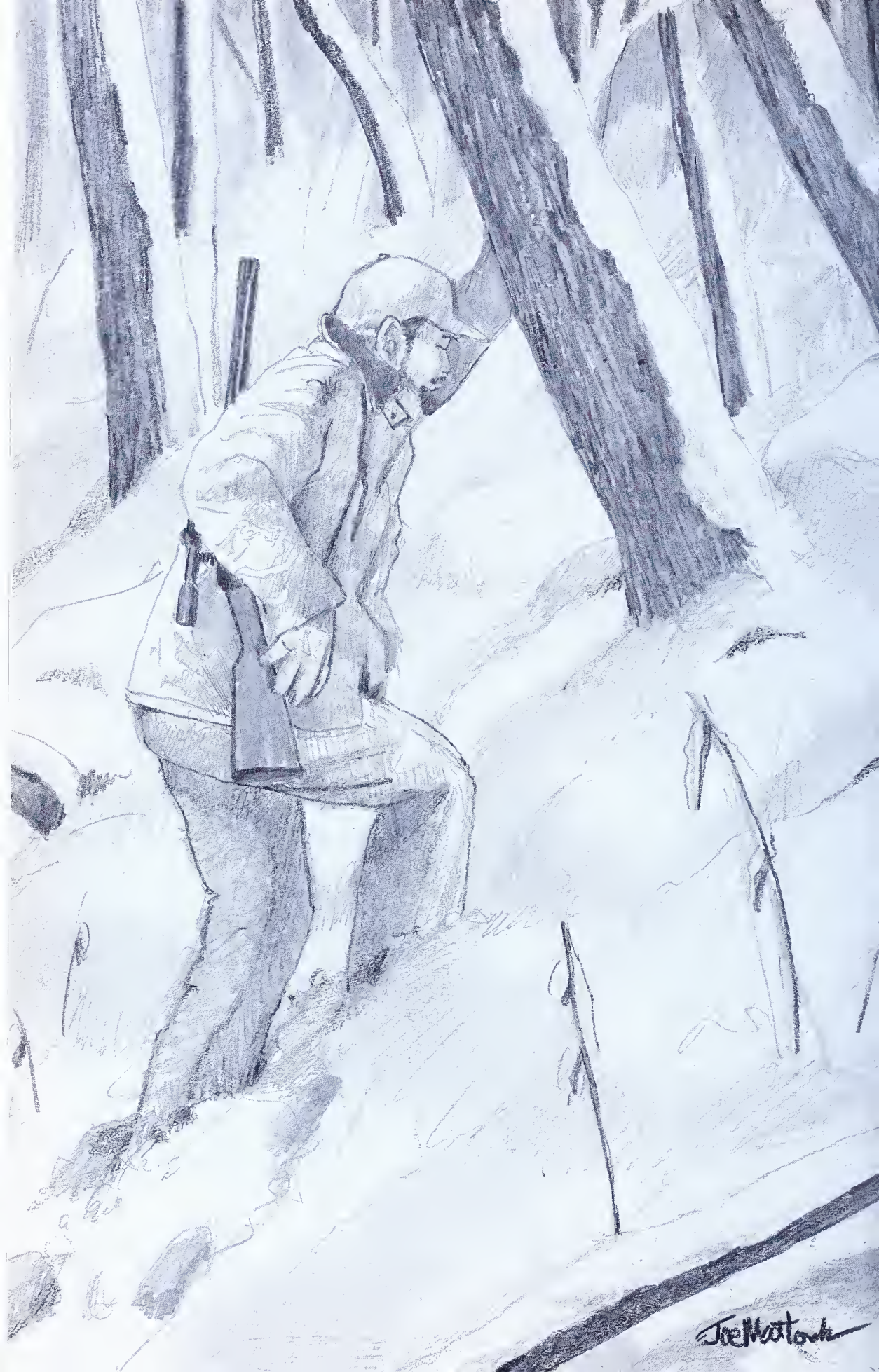
man has no reason to turn around and shoot behind him, unless the shot is deeper into the corn rows. With more than two hunters, I prefer a straight-line set-up because it's simply too hard to keep track of several hunters hidden in the stalks.

Not only is the position of the two hunters important, so too is the tempo hunters take. A fast walk accomplishes little in flushing cottontails. A patient bunny will sit tight if it thinks you are only walking by. But a slower walk, with constant stopping and standing, has more impact on the rabbit. When a hunter stops and stands it makes a rabbit nervous, thinking something is about to pounce on it. As you resume your steps, a rabbit under cover will have a tendency to bolt.

One good tactic on a tandem hunt is for the man walking the hedgerow to poke around inside the thicket, playing the part of a hound. When hunting with a dog, your four-legged friend does all the work along the thicket. The dog's nosing and scouting through the brush allows the hedgerow hunter to keep his eyes glued on the best escape route and be prepared for a shot.

I've found that the best hunting in cornfields takes place an hour or so after the frost disappears in the morning and about an hour or so before the sun goes down. When the sun is high I hunt other cover on the farm.

Hunting rabbits along cornfields and the bordering thickets is wonderful sport. Farmlands that are managed with hedgerows and fencerows still have plenty of bunnies. There's a system to this hunting, like any other, and once you learn and perform its basic components, you should take more rabbits in the rows. □



Joe Mattioli

Finding the Spots

By Bob Carter

I HAD never noticed the tiny bench far above me on that intimidating ridge, and if it hadn't been for the fresh snowfall, I don't think I would have spotted it.

Late one Sunday afternoon, the day before buck season, I was scouting unfamiliar territory in Centre County, looking for a place to sneak into the next day. With this new snow to help define the terrain's profile and the setting sun behind me, I could make out a couple hundred yards beneath the rim of that very steep, brushy ridge, a tiny bench that looked nearly level. I thought it might be a great place for a buck to take refuge.

That night at dinner with camp members, I mentioned the spot. They laughed, saying that the ridge was too steep to hunt. I knew from touring trails behind the top of the ridge that there was open woods, punctuated by old burns and a few abandoned farms. Deer fed up there at night, but there was little security cover for bedding.

My choices were to drive around the ridge to the top, then drop off the ridge onto the bench, or make a tough climb to it before daylight, in about 10 inches of snow. I chose the climb, feeling there would be less chance of spooking deer off the bench, because I could ease up over slowly.

Forty-five minutes before shooting time I parked behind a van at the foot of the ridge and began to work my way up the first steep brushy bank. I paused a hundred yards up for my first little rest and was surprised by a loud voice: "Hey buddy, would you move your car? I don't think you left me enough room to get my van out."

In the gloom, I saw a hunter standing against a tree. I knew I'd left him room, but didn't want any trouble, so I gave him

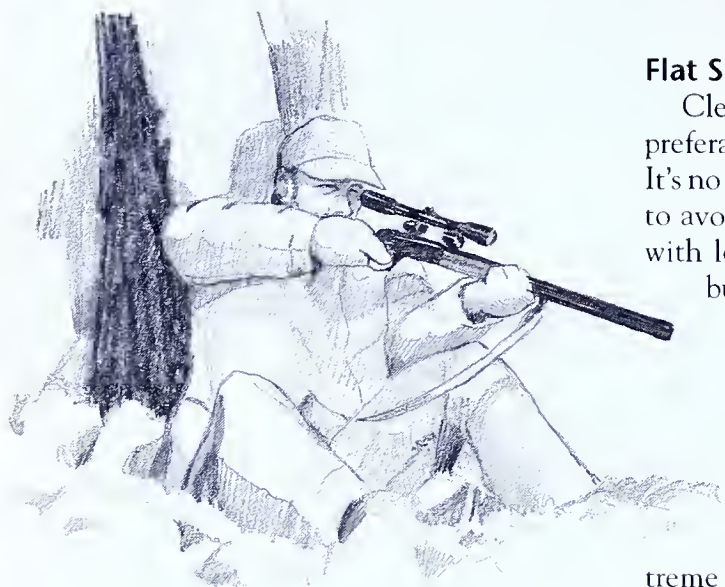
a wave, descended and moved my car about 20 feet back. I worked my way back up and finished the strenuous climb.

The snow made footing tough, and it took far longer to reach my spot than I expected. It was shooting time when I reached the bench, and as I pulled my coat back on and peeked over the edge for the first time, I spotted the back end of a deer about 20 feet away. The deer turned out to be a big doe, with two fawns, browsing on small shrubs. I waited until they moved off then finished my short climb onto the bench. Now I could see along most of its 150-yard length. What looked level from the road wasn't, but the bench was far less vertical than the rest of that ridge. And from tracks in the snow, I could see that deer were using it as a travel corridor.

As soon as I got to my spot, I noticed a nice buck feeding my way. I got the .270 up and scoped the deer — a decent 6-point. I waited until it fed into a small opening and squeezed off a shot. The buck sprinted 50 feet and collapsed. The bench had proven to be a good spot.

As I slid the deer down the ridge to the car, I passed the hunter who liked to talk so loudly, still standing 100 yards off the road. He made another loud comment as I went by: "Some guys have all the luck."

The next day, from the road below where I'd first noticed it, I showed the spot to my friend, John Hetherington, as we headed out to make a drive. "Carter," he said, "that's just too steep for human beings up there."



Flat Spots in Steep Terrain

Clearly, deer need places to lie down, preferably places that are somewhat level. It's no secret that deer take to heavy cover to avoid hunters. Combining thick cover with level bedding spots are areas where bucks are most likely to hang out.

There's such a spot behind my camp in Clinton County, where a narrow bench lies just above the thickest, steepest tangle of scrub oak and rocks you could imagine. A few years of approaching that bench with extreme caution revealed that bucks used it for bedding, but they usually lurked just a couple jumps from the drop-off into that scrub oak jungle. Sometimes they'd lie down on the very rim of the drop-off, so their first bound would render them invisible to the hunter approaching from above.

How must one hunt that spot without spooking a buck? I think you arrive well before daylight, keeping the wind in your favor, then wait for him to appear, sneaking along, feeling well concealed. Or, spend the last couple hours of the day sitting on that bench, waiting for him to come up out of the thick stuff. It may be the last few minutes of shooting light when he appears, but I've had it happen more than once.

I like to be on this particular bench early. One year on opening day I got to my spot well before daylight and waited for the deer. Just after it was light enough to see, I saw ears bobbing along the edge of the scrub oak below, then deer popped up onto the bench — two does, looking nervous and skittish. The next deer was a 5-point, and when it paused in the open part of the bench, I took it.

After 10 years of taking bucks off that bench, most of them on the first day or last few days of the season, I took a count. More than a dozen nice bucks had been taken there, almost always by posting there early, or by conducting quiet two-man drives along the bench. As long as that tangle of scrub oak remains as escape cover, that

The next year I hunted elsewhere. John was enduring a deerless season by Wednesday morning of the first week, so he decided to duplicate my strenuous climb from the year before. He received sarcastic chuckles from camp members, but he was determined to give it a try nonetheless.

It took him a full 20 minutes on the bench before a buck showed up, browsing quietly along. John saw a nice rack, focused on picking a hole in the brush, and then made the shot. Was he delighted? I think so. The 8-point's high 21-inch wide rack was the biggest anyone had brought into that camp for many years.

John said he worried that now some of the other hunters in his group would try to beat him to that bench, but no, they didn't relish the vertical exercise enough to give it a try. This brings up a key point. I believe that many bucks escape hunters simply by picking a bedding spot hunters won't enter because it's too steep or too thick or both.

In thinking about where I've found bucks in Penn's Woods while still hunting and tracking deer for the past few decades, I've identified some factors that might help other willing hunters find bucks.

bench will be a great place to find a buck.

One year, having seen no bucks the first day, we tried the impossible. We put on a drive up through the scrub oak jungle to the bench. Bill Hubbard and I took watches on the bench for that midday push. I was amazed at what poured out of the scrub oak ahead of our sweating, struggling band of drivers: several turkeys, a red fox, a whole gang of deer that burst all around us and, oh yes, a handsome, heavy 8-point that practically ran over Bill, who shot it in self-defense. But, we never did that drive again. It was just too nasty and there was too much risk of a hunter falling on the rocks and getting hurt.

Reluctant Bucks

Another type of cover I like to hunt are those small, dense thickets bucks refuse to be driven from. We've all had the experience, if we've driven deer, of having a buck keep slipping around the drivers, doubling back to stay put in his favorite thick cover. If it's really thick, you may get a glimpse of him, but never a shot. How does one get such a crafty buck out in the open?

In still another scrub oak patch on our mountain, we were constantly being given the slip by a buck that hung out in a 10-acre thicket and refused to be pushed. Nearly every drive somebody would see a piece of him, but he'd always get back through us.

One day, with eight hunters, we decided to put everybody on the drive and practically lock arms going through that little parcel, to see if we could get the buck to leave the cover. Finally, this savvy little forkhorn was pushed out. All eight of us emerged from the end of the patch, just in time to see him disappearing over the ridge, 300 yards away across the hollow from us.

Well, at least we had him out of there, so we left three watchers right there at the edge of the scrub oak. The rest of us slid left down the hollow and then wrapped around the back of the ridge where he'd disappeared. Within minutes of the drive a shot came from the scrub oaks. The forkhorn was collected on his sneak back

into his favorite pocket.

So, if you find a stubborn buck that refuses to leave a patch of cover, try that pass and re-pass technique. Often, you'll see deer hightailing it back into that cover during the second pass; deer that you never knew you put out in the first place. Remember, that spot is a magnet for deer and if shoved out of it, they urgently want right back in.

It's with deep regrets that we announce that the author, Bob Carter, passed away shortly after submitting this story to *Game News*.

Timing Dictates Strategy

Finally, in planning how to intercept these sneaky bucks, remember that the game changes during various phases of buck season. I've found that after the first couple days of the season it's often difficult to even see many deer in the hard-hunted areas of Pennsylvania, until many of the hunters leave the woods. But the deer are still there, somewhere. That reality does make steep, thick places all the more productive, but it also makes the lightly hunted second week an ideal time to still-hunt for deer and to check out these little bedding spots. I'm certain that many of the older experienced bucks simply are driven to take up less than comfortable beds in the thick, vertical tangles, then stay there until most of the humans and human noise and scent are gone.

We all know that deer like thick cover for hiding. The trick is in finding those few spots among the mountains and hillsides where bucks may comfortably bed down within easy reach of a dense tangle into which no sane person will follow. Think about your hunting area. There will be a few small places that bucks just love, and the less than ambitious hunter doesn't. Go there. □

On the Road to Recovery

By John P. Dunn and Kevin J. Jacobs

PGC Wildlife Biologists

AFTER FOUR YEARS of closure, the hunting season on migratory Atlantic Population Canada geese will reopen in Pennsylvania and other Atlantic Flyway states this November.

The Atlantic Population of Canada geese (AP) nests across a broad region of Canada, from northern Quebec into Labrador and Newfoundland. The major nesting area is on the Ungava peninsula of northern Quebec. Their major migration corridor extends from northern Quebec, south through Ontario and western Quebec, into New York, New Jersey and eastern Pennsylvania, to the Delmarva Peninsula.

The AP was once considered the largest Canada goose population in North America, with wintering numbers in excess of 1 million birds. AP geese were the staple for many waterfowl hunters, with harvests of near 500,000 during the mid-1980s. Commercial guides and outfitters prospered, particularly on Maryland's Eastern Shore, where goose hunting is estimated to have contributed more than \$50 million annually to the shore's local economy.

Since 1955, Atlantic Flyway Canada geese have been monitored through mid-winter surveys. Since the 1970s, however, resident Canada geese have increased dramatically, to more than 1 million birds. The mixing of resident and migrant geese on wintering areas has seriously affected the

ability of the mid-winter survey to monitor these populations. Therefore, beginning in 1993, annual breeding ground surveys have been used to more accurately determine the status of migratory goose populations. Since then, annual breeding ground surveys have been conducted across the key breeding areas of northern Quebec.

Since reaching a low of 29,000 pairs in 1995, the number of breeding pairs has generally been growing over the past several years. This past spring, 77,000 breeding pairs were counted, the highest since 1993. The total population (breeders plus nonbreeders) is now estimated at between 600,000-700,000 birds, nearly double what it was in the early 1990s.

Back in the mid-1990s, an alarming decline in breeding pair numbers was evident, as the population fell from 118,000 pairs in 1988 to 90,000 in 1993, 40,000 in 1994, and 29,000 in 1995. This decline was due to two factors. A series of late springs on the Ungava breeding grounds resulted in poor production of goslings. With few goslings, hunting pressure was focused upon breeding adults. At the same time, resident Canada geese were increasing dramatically, which masked the decline of migratory geese. This prevented biologists from recognizing the decline until it was well underway.

This decline of more than 75 percent prompted the Atlantic Flyway Council and USFWS to take dramatic action and suspend the sport hunting season on AP geese throughout Canada and the U.S. This closure impacted thousands of goose hunters

throughout Pennsylvania and other states and affected local economies. In addition, the loss of the traditional fall hunting season allowed resident Canada goose flocks to increase further, thereby exacerbating the damage occurring to agricultural crops and private property.

In July 1996 the Atlantic Flyway Council approved an Action Plan to guide the recovery of the AP. This plan identified immediate research and survey needs that would help rebuild AP numbers. In addition the plan established a short-term population goal of 150,000 breeding pairs for the Ungava Region, 15,000 for the Maritime Region and 25,000 for the Boreal Forest Region. Also, the plan contained provisions for resumption of a sport harvest when the total breeding population reached at least 60,000 pairs and evidence of a sustained recovery was underway.

In July, waterfowl biologists from Atlantic Flyway states met to discuss the status of the AP goose population and make harvest recommendations. Because the spring '99 survey total of 77,000 pairs exceeded the 60,000 pair criteria identified in the Action Plan and there was evidence of good gosling production for the third year in a row, it was decided a limited harvest could occur without jeopardizing recovery efforts. The problem was how to control the harvest so that harvest objectives were not exceeded.

Having not been hunted in four years, AP geese will be extremely vulnerable. There are also differences in the susceptibility of AP geese being harvested in different regions of the flyway.

On the eastern shore of Maryland, more than 90 percent of the Canada goose harvest is comprised of AP geese, whereas in Pennsylvania and other northern states that harbor large resident goose populations, migrant geese are likely to make up less than 40 percent of the harvest. Therefore, hunting regulations were developed that provided for longer seasons in states

with large resident flocks and shorter seasons for states that shoot primarily AP geese.

Seasons were also set for when resident geese, not migrants, are most likely to be taken. In eastern Pennsylvania, the season will run from November 20-27 and December 31-January 8, with a 1 goose daily bag limit.

In the past, the absence of breeding grounds population surveys, leg banding programs and recruitment studies limited the ability of managers to monitor the AP. Now these critical programs are underway.

Since 1997, 16,561 AP geese have been banded (10,193 juvenile geese and 6,348 adults). To date, due to closed regular hunting seasons, there have been relatively few (less than 70) recoveries of banded geese. A few banded geese have been harvested during the special September and late resident Canada goose seasons, however.

Now, with a considerable number of banded geese in the Atlantic population breeding range and regular season hunting to be re-instated in 1999-2000, these banded birds will provide an important measure of annual harvest and survival rates as hunting opportunities increase. So please, if you take a banded goose this year, be sure to report it.

This year's AP goose season represents an important step on the road to population recovery. Much will be learned as the hunting season reopens, allowing wildlife managers to accurately monitor the status of the AP.

With continued cooperation from all partners that cherish this resource, and a little help from Mother Nature, we hope to continue to see the sight of thousands of Canada geese winging their way south from their northern Canadian breeding grounds far into the next millennium. □

HOME FROM THE HILL

BOB SOPCHICK

THE LID ON THE KETTLE clanged like an alarm, waking Addy from her drowsy vigil by the window. She rose from her rocker then lowered the flame and stirred the hearty beef stew, or "farm-in-a-pot" as her husband, Tom, fondly called it. The comforting aroma of the stew and freshly baked bread filled the big farm kitchen. She placed her palms on the cooling loaves and knew she had slept about an hour, and glancing over at the clock saw that she was correct. Honestly, she thought, being able to gauge the passage of time by the warmth of a loaf, but after 50 years in the same kitchen and thousands of loaves, what need of a clock?

Addy wiped a fogged window pane with a potholder and slowly scanned the snow-covered cornfields all the way to the edge of the pine woods and beyond, to the high arc of the wooded hill that looked down on the farm. No sign of him yet. This was the first day of buck season, and some years he stayed out till quitting time. She had heard a distant shot earlier, and expected to see him dragging his buck in before lunch as he usually did. Maybe he missed, she thought, but that was not likely. Not Tom. Or, maybe the buck took off down the other side of the hill and he had a long, steep drag. This set her to worrying, and she returned to her seat and rocked to images of her stubborn old farmer wrestling a buck up the steep, brushy hillside. She wished that their son, Jack, was out there hunting with him, and at the thought of him she blinked hard, then took to worrying about him, too.

A fine, grainy snow hissed against the windows and gathered on the sills. It was bitter cold and windy and the creaking house complained, in the same way it no doubt had complained to other generations of Stoughs' for the past 150 winters. She tried to read, but lacked concentration. Instead, she studied her pale hands outstretched on the open book, and in them she read the story of her days, and smiled.

She daydreamed of churning butter, and afterwards of holding her red hands in the



rush of clear water as her little sister worked the pump handle, felt again the cold stream numbing her very first blisters. Then came fleeting images of the busy hands of a young farm wife, nimble and calloused, picking snap beans and pulling weeds, peeling apples, milking (360 squirts to fill a pail), plucking pheasants. And now, the hands of a mature woman; knowing hands that seemingly worked without thought, kneading and rolling out acres of dough, knitting colorful afghans, always holding the ever-present broom, constantly sweeping away dirt — and along with it, anything that troubled her.

A breach in the clouds created a square of sunlight on the plank floor, and for a long while she watched its progress as it crept up a wall. Another shot, closer this time, echoed over the fields. Addy swept snow from the back porch steps, and could tell by the shadow on the barn from the towering twin pines in the yard that it was a little after two at their Twin Pines Farm.

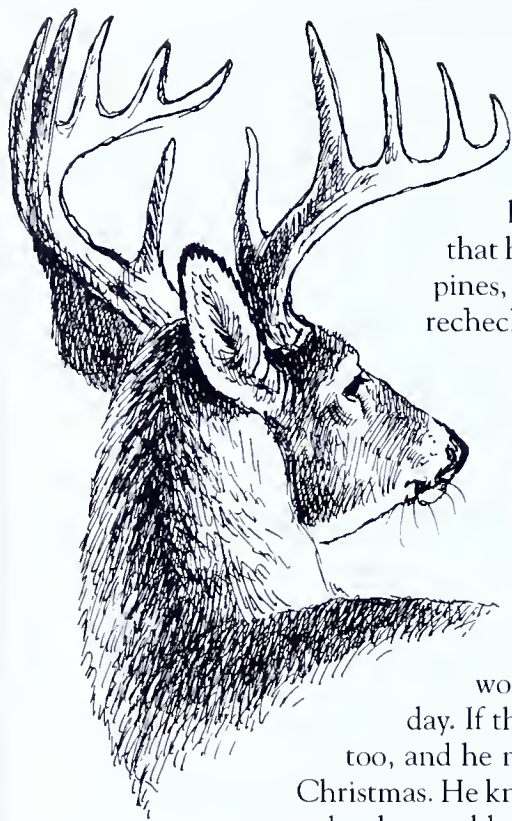
To Addy, the farm was a shifting, complex, multi-layered operation that required constant nurturing, but for Tom Stough, farming was as pure and simple as the black silhouettes of the twin pines against stark winter fields. He had a fascination and respect for all things that sprung from the soil, both domestic and wild, and from the very first time that he sat on a tractor and plowed a furrow he became the quintessential farmer. He met every challenge with an unyielding will and stonefaced determination, and the farm survived. If it was something beyond his control, like weather, Addy was there to worry about it. When it came to hunting though, and deer hunting in particular, Tom's typically stoic demeanor changed to an animated exuberance that was a joy to behold.

Deer season was a time for fun, and there was nothing he enjoyed more than sharing that time with his son, Jack. They were often joined by a few neighbors and Charlie, a long time friend from town. The season opener was a grand event that began weeks before with careful preparation. Guns had to be sighted in and practiced with, equipment checked and re-checked, stand sites carefully scouted, strategies debated.

Over the years many traditions developed. The day began with Addy's renowned buck hunter's breakfast, which was eclipsed by a more remarkable feast at supper, one the gang called "Thanksgiving II." While the others put on drives in the huge thicket on the west end of the farm, Tom and Jack always hunted the first morning together on the north hill. Another tradition concerned bringing in the deer — under no conditions would a deer be hauled in by truck or tractor. The tractor was for farming, not for hunting, and dragging in the deer was part of the hunt. The big bell in the yard could be heard from anywhere on the farm, and whenever a lucky hunter pulled his buck in, he had to toll the bell once for each antler point. This was all tempered with a delightful competitiveness, and much kidding and boasting. One year, Charlie rang the bell eight times even though his deer sported a half rack on one side and a broken main beam on the other. He reasoned that his buck would have had eight points had the other side not been broken. Charlie was an accountant, and this made it worse, taking a tremendous ribbing for counting the points that weren't there.

But those enthusiastic times had passed. Most of the neighbors had moved on, and Charlie's health was rapidly declining. Jack was out of the country during deer season last year, so Tom had hunted with the Boyd's on their farm. Thanksgiving morning Tom excitedly picked up the phone on the first ring. Addy saw his zeal fade as he listened, and when her eyes met his he looked away. Jack said that he might be able to fly in for a day of doe hunting, but buck season was out. Tom told him not to apologize, that he understood, but knew for the first time in 53 years that he wouldn't hunt deer at all.

The day before the opener, Addy bolstered Tom's spirits, gave him the challenge he



needed — that there would be a fresh snow for tracking and that she expected to hear the bell ring tomorrow, and that she was looking forward to making some venison sausage. His gray eyes brightened, like sun burning through a fog. She also mentioned that he ought to take the tractor out and park it up near the pines, but he declined, clinging to tradition, then cheerfully rechecked his gear that had been readied weeks before.

Jack reviewed his busy year-end schedule for the third time while the jet held in a pattern above Atlanta. He managed his thriving business with Tom's same pragmatism and Addy's attention to detail. There were a lot of loose ends to be tied up before Christmas. He would call the farm on Thanksgiving morning and cancel out of buck season. Thanksgiving day would be at his in-laws. Most of the weekend would be spent preparing for a presentation on Wednesday. If things snowballed after that, he would miss doe season too, and he might not be able to get his family up to the farm for Christmas. He knew that he hadn't been back to the farm in nearly two years, but he would make it up to them once things settled down.

While talking with his father on Thanksgiving morning Jack felt strangely detached, as if he were listening to a voice other than his own, and the hitch in his father's voice bothered him. He looked at the stacks of files in his home office and thought of others at his office in the city, and wondered how he could finish all of it before everything slowed for the holidays.

After the call he stared out the window and thought of how everything in Pennsylvania slowed during deer season, when many schools and businesses closed so that a million hunter's could renew their contract with nature. A flock of blackbirds sailed over a magnolia tree and onto the lawn, reminding him of the geese that would sail over the north hill and glide down to the farm pond. He placed the outline of the proposal back in his briefcase and looked out the window again, hunting for another memory.

Tom leaned into the strong wind, plodding up the drifting lane that divided the cornfield. It was a long hike, longer than he had remembered, and by the time he reached the pine woods the stormy sky had a faint silvery cast. The wind in the pines sounded like the whispers of friends urging him on. He continued up through the pines and farther up to Jack's funnel stand on the crest of the hill, where the woods constricted and deer came through spooky and fast, heads low and tails clamped tight in typical farm deer fashion. He hunkered in and waited for full light.

Addy's breakfast kept him warm and alert through the frigid morning. A shot cracked on the other side of the hill and Tom was happy to hear it. Soon after, several deer came sneaking through, the last a bruiser of a buck. Tom tried to find the buck in the peep sight, but the aperture cup was full of the sugary snow. By the time he cleared it the buck was already into the pines. Without Jack to help him put on a drive, he would chase the deer around in there all day by himself. But then, a plan; he would ghost through the pines as slowly as possible, hoping to nudge the deer just slightly ahead, then drop out of the woods and loop around to the far end and back into the pines through a little gully

and wait.

While moving through the pines he heard another shot from the big thicket, pleased that the Boyds who always hunted there, were getting some shooting. An hour later Tom was in the gully and the deer filed through like clockwork. His .300 Savage roared, and the buck bolted out into the cornfield and went down. It was a huge 11-point, the biggest deer ever taken on the farm. Even field-dressed the big buck was difficult to slide over the undulating rows of stubble, and it took a long time to get it over to the lane. In the distance the house seemed the size of a pebble, and he knew that the deer was more than he could, or should try to drag. He sat down on the buck's rump, exhausted more from the mixed emotions that swirled like snow through his head than the rigors of the hunt. He'd rest a while, then go for the tractor.

Addy saw the speck of orange far down the lane that for a long while didn't move. With Tom's old binoculars she could barely make out the hunter, but could tell that it was Tom and that he was sitting. She bundled up and went out to sweep the steps again and stood staring out at him, then decided to find out what was going on. She disappeared into another squall that swept in, this time as curtains of large flakes.

Tom stood when Addy called his name. "I hope you're not gonna try to sweep this whole lane so I can drag this monster in," he said.

Addy looked at the broom in her hands, embarrassed, not realizing that she had carried it with her, then looked at the big buck. "Oh my, he's a whopper!" She swept snow off the maize-colored buck and its great spread of antlers and Tom's pant legs and coat. "I'll help you pull him in," she said.

"No, he's too heavy, we'll get the tractor. I bet he weighs more than 200 pou" His sentence was cut off by six clear rings of the farm bell. It was one of the Boyds, no doubt, stopped by to show them his buck, and they waited as he started down the lane to them.

When the hunter emerged from the wall of flakes he whistled at the size of Tom's buck and said, "Looks like you could use some help dragging that buck in, and seeing that I already got mine, I guess I could help, but only because I'm cold and hungry."

At the sound of Jack's voice Addy dropped her broom and buried her face in her hands, hot tears streaming from between her fingers. Tom searched for a witty reply, but instead sat down on the buck, helpless and speechless and breathless.

Jack told how he wanted to surprise them by showing up for breakfast on opening morning, flying in at midnight, driving for hours through the storm, but getting the rental car stuck on the other side of the hill. And of how he put his gear on and came up through the slashings and jumped a buck, missed it and tracked it to the thicket where he got a second chance.

"We can talk when we get back, Addy said, I have hot coffee, bread, apple cobbler and stew."

"Farm-in-a-pot? All right! My favorite," Jack said.

Tom and Jack each grabbed an antler, Addy with Tom's rifle slung over a shoulder, broom in one hand, the other in the crook of Jack's arm. They headed home from the hill as one, each bound to the other and through the deer to the frozen and furrowed earth.



Kids



JESSICA VALASEK, 13, Worthington, above, got her Armstrong County antlerless deer on the last day of buck season last year. The special season allowing junior license holders with required antlerless license to take a "baldy" during buck season is well-received by hunters, especially the kids. LAUREN GEESAMAN, Hummelstown, right, with her 120-pound doe taken last year.



SARAH BENDER, York, took this doe, her first deer ever, on the first Saturday of buck season last year.



RYAN KNOLLS, Wyalusing, took his doe in Susquehanna County.

Deer



MARIE EVERETT, Wilkes-Barre, got her button buck in Bradford County on the first Saturday during buck season last year. Marie's father, Bill, says the opportunity for junior hunters to harvest antlerless deer during the Saturdays of buck season is the best thing to happen for hunting in Pennsylvania.



MATT LAUER, 12, Parker, downed his first deer last season, this 6-point, in Butler County with one shot from his .243.



KYLE LARNERD, Rome, above, got his first deer this nice doe, in Bradford County on the last Saturday of buck season last year. Kyle says time spent in the woods with his dad is very special. **ANTHONY SUSI**, Pittsburgh, left, got this spike in McKean County on last year's buck season opener.



FIELD NOTES



Close Encounter

WYOMING — Trooper Ed Urban was on Dutch mountain when he noticed a hen turkey with 15 poults. Suddenly, the turkey rocketed straight up, and in their midst a bobcat appeared like an apparition. Mom's wary eye saved the day for her brood.

— WCO WILLIAM WASSERMAN,
TUNKHANNOCK

And Sportsmanship

TIOGA — Last summer 47 students took the HTE course at the Cowanesque Rod and Gun Club in Elkland. In addition to their hunter-ed card, students received a one-year membership to the club. I can't think of a better way to start off new hunters than by providing them with a place to learn marksmanship as well as safety.

— WCO RICHARD J. SHIRE,
MIDDLEBURY CENTER



Deadeye

TRAINING SCHOOL — I met a man hunting groundhogs who told me he had already taken 204 of the burrow diggers. A notable feat in itself, but the man was in his 80s and using an open-sighted .22 rimfire.

— TRAINEE PETER F. SUSSENBACH,
HARRISBURG

Pearly Whites

GREENE — My wife is adjusting well to my job but still isn't quite sure what she'll find next. After work one day she opened the garage door and was greeted by a large beaver taxidermy mount showing all its impressive dental work. Turning to my daughters she said, "Well now, isn't it nice to come home to a smiling face."

— WCO RODNEY BURNS, WAYNESBURG

Awful Big Difference

BEDFORD — While on vacation in Maine I spent a day with Game Warden Bill Livezey. Many aspects of our jobs are similar, but one difference that I'm happy to say is that although Pennsylvania has more reported roadkilled deer than Maine's entire number of deer taken by hunters, I've never had to pick up a roadkilled moose.

— WCO DAN YAHNER, EVERETT

Banner Day

LANCASTER — On a state game lands here one afternoon I saw two hen pheasants and two cock birds, six deer, many rabbits, a red fox, songbirds galore and bald eagles.

— WCO LINDA L. SWANK, KIRKWOOD

Corridors of Habitat

Erecting streambank fencing to keep cattle from trampling and eating vegetation along eroding streambanks is part of the Farmland Habitat Recovery Program. The practice helps clean up streams and promotes growth of natural wildlife habitat. It seems to be working in my area as one of our cooperators observed a brood of young pheasants in the cover along his streambank project.

— LMO JAMES E. DENIKER, SANDY LAKE

Bearing Fruit

TRAINING SCHOOL — I spent a day working with LMO Shayne Hoachlander and his Food & Cover crew in the Northwest Region. We planted a wheat field, and then inspected food plots, signs, boundaries and gates on game lands. During the day I saw two turkey flocks, seven grouse and a buck.

— TRAINEE BRIAN E. WITHERITE, HARRISBURG

Jumpin' the Gun

MONTGOMERY — I heard a report on a local radio station about a person selling blowguns for people to hunt for game if food becomes scarce during a Y2K crisis. I want to remind everyone that blowguns are not legal to hunt with in Pennsylvania. I don't think we'll have a food shortage when January 1st arrives, but if we do, a properly licensed hunter can legally hunt for many species of game during that month.

— WCO BILL VROMAN, FREDERICK

One Man's Junk . . .

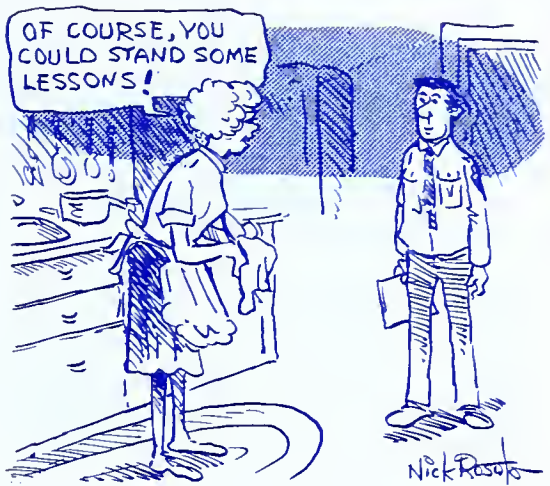
WESTMORELAND — Southwest Region Law Enforcement Supervisor Matt Hough was having his annual evidence freezer clean-out day. With the help of several officers, parts of deer and bears, and beaver and fox carcasses littered the garage floor and parking lot, as they were being separated and loaded into a trailer for disposal. Coincidentally, the private residence next to the region office was having a yard sale, and the homeowners had placed signs on the main street directing people in. The only problem was that folks had to pass the region office, and seeing all the parts and carcasses lying there, just had to stop; nobody was buying, though.

— WCO RODNEY S. ANSELL, MT. PLEASANT

Turnabout

UNION — Ed Lay's dog, Buddy, took off after a deer in their yard before Ed could grab it, but the chase didn't last long; the deer soon turned and nearly chased Buddy back to the house.

— WCO BERNARD J. SCHMADER, MILLMONT



Don't Quit Your Day Job

BRADFORD — My wife and I live near an auction barn where area farmers bring their livestock to sell. One day after doing some paperwork in my upstairs office, I went down to the kitchen to see my wife. "I heard you singing. You sure are happy today," she said. "I wasn't singing," I replied. Later, we discovered a farmer had a truck full of cows at the auction and that's what my wife had heard. The thing I can't believe is that we have such talented cows here in Bradford County.

— WCO WILLIAM A. BOWER, TROY

"Birdbrained"

BLAIR — I was watching an American kestrel diving and swooping after insects over a field near a road when the bird flew directly into the side of my truck. I picked up the bird, fearing the worst, but the stunned kestrel was fine and on its way in a few minutes.

— WCO SCOTT THOMAS, TYRONE

Bountiful

TRAINING SCHOOL — Looking at some land management projects on game lands in Cameron and Clearfield counties one day in September I saw 75 turkeys, 20 elk, several nice bucks and a bobcat that ran right behind me while I was talking to LMO Colleen Shannon.

— TRAINEE MARIO L. PICCIRILLI, HARRISBURG



Comes with the Turf

DELAWARE — WCOs and their deputies are constantly participating in some type of training. A recent self-defense training session lasted two days, and most of us were bruised and sore when it was over. The day after, I dropped off some information to our local state park rangers, and the aftereffects of the training must have showed. When a ranger commented that I looked like I was being overworked, I explained the difference between being overworked and being worked over.

— WCO ROSE LUCIANE, EDMONT

Good Thing

POTTER — Last summer I responded to calls about elk in cornfields, bears in garbage cans, foxes in chicken coups, skunks digging in lawns and groundhogs chewing on decks. Thank goodness we don't have elephants here, yet, anyway.

— WCO WILLIAM C. RAGOSTA, COUDERSPORT

"Bagged"

JEFFERSON — I discovered a bag of trash dumped on SGL 244, and after opening it I found a traffic citation along with a receipt from the magistrate's office for it. Not only on the traffic ticket was all the information needed to issue a litter citation, but I was happy to know this particular individual pays his fines.

— WCO ROGER A. HARTLESS, BROOKVILLE

God Bless America

MONROE — A television station from England contacted me about doing a segment on bears. The host was anxious to learn as much as possible about the bruins inhabiting the Pocono Mountains. I learned a lot, too. It seems hunting in the United Kingdom is for the elite only, gun ownership is almost unheard of, and wildlife populations are controlled by government sharpshooters.

— WCO RANDY L. SHOUP, LONG POND

Paperwork Trail

McKEAN — Automotive Report, Arrest Report, next month's schedule, Information and Education Report, Time and Activity Report, prosecution reports, Turkey Sighting Survey, Deer Deterrent Fence Enclosure Application approval, Sign Request Form, Deputy Time and Activity Report, Forest-Game Program update, Mute Swan Survey, Safety-Zone Cooperator Agreement, memos, and last but not least, a Field Note.

— WCO LEN A. GROSHEK, SMETHPORT

False Advertising

FAYETTE — This year at the Fayette County Fair our PGC trailer was set up at a new location, right next to an equipment dealer, not at our usual spot by the livestock barns. Although directions were easy to give, right next to the "bobcats," many people were disappointed when they came to see the real thing but instead saw Bobcat Tractors.

— WCO CHARLES H. MAY, MILL RUN

Productive Summer

PGC supervisors, Dave Griffin and Bill Mounts, report that pheasant holdover and natural reproduction was excellent on game lands in Greene and Washington counties. Dave said he counted 13 different hens with one to five chicks per brood on August 10. Our warm season grass program seems to be working just fine.

— LMO GEORGE MILLER, PITTSBURGH

Must be a Biologist Thing

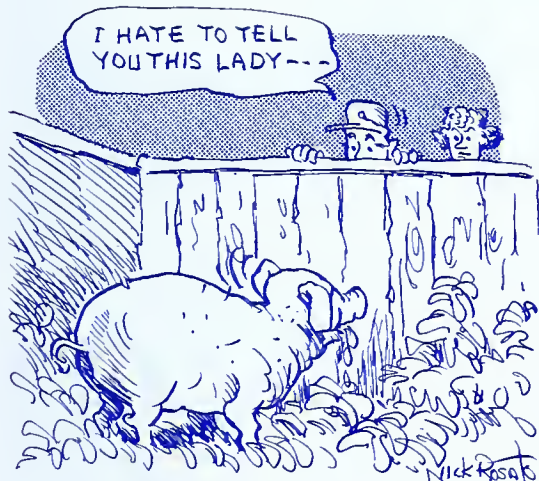
CUMBERLAND — WCO Dick Karper and I conducted a turkey survey route in the Michaux State Forest without seeing any turkeys. We got together with new turkey biologist Mary Jo Casalena to go over our survey map when we noticed turkeys walking out of a nearby food plot.

— WCO EDWARD B. STEFFAN, NEWVILLE

Despicable

HUNTINGDON — Three deer were found bobbing in Raystown Lake, anchored to cement blocks. Upon investigation, we discovered that the deer had been poached and placed in the lake to draw fish to the area. It amazes me what some greedy individuals will do to take game or fish.

— WCO JOHN B. ROLLER, HUNTINGDON



Mistaken ID

Deputy Fred Jones of Enterprise received a call from a rather frantic woman who said that a bear was tearing up her garden. Fred asked the woman if she was sure it was a bear, and the woman emphatically said that she knew a bear when she saw one. When Fred arrived, the woman was waiting and quickly directed him to the backyard where the garden-pillaging bear was still at work. As Fred carefully approached the fence surrounding the garden he peeked over and discovered that the “bear” was actually a large pig.

— WES RICHARD T. CRAMER, TIONESTA

Big Success

VENANGO — The bluebird nesting boxes on my walking trail are visible from my kitchen window, and by July 31, 21 birds had been reared in them.

— WCO LEO C. YAHNER, FRANKLIN

Touched by the Sun?

MERCER — On the early goose season opener I was checking hunters near the Shenango Reservoir. Heading back to my vehicle in the afternoon, I noticed a large red object moving beyond a decoy spread. I had already checked those hunters and couldn't figure out what I was seeing. Through my binoculars, though, I identified the object as a person. It seems one of the hunters had stripped to his Skivvies and was wading across the channel to retrieve a goose. I'm not sure if he was sunburned or embarrassed, making him appear red, but he was proud of his goose. I didn't get a photo, but I told him he might make the *Game News*. Thanks to Daniel Stoup of Hermitage for the extra effort in retrieving his goose and for providing me with a Field Note.

— WCO DONALD G. CHAYBIN, GREENVILLE

Banner Year

The many fawns, grouse chicks and turkey poults I saw last spring are indicators of an excellent reproductive season, mainly because of dry weather conditions. I even noticed a brood of pheasant chicks on one of our Farm-Game cooperator's property.

— LMO COLLEEN M. SHANNON, GRAMPIAN

Greased Lightning

While inspecting a trail on SGL 180 that may be opened to physically challenged hunters, I surprised a bear that was feeding on acorns 40 feet up an oak tree. Sighting my truck, it hugged the tree with its front legs, kicked out the hind ones and promptly slid down the trunk just like a fireman down the firehouse pole. It was so fast I thought I smelled smoke.

— LMO JOHN C. SHUTKUFSKI, DAMASCUS



Interpreter

At a Youth Field Day in Tioga County we set up a bird identification course where the youngsters walked a nature trail and had to identify 15 taxidermy specimens. The kids did pretty well at identifying birds, but in many cases their spelling could have been better. Here's some of the answers we received: offspray (osprey), grouch (grouse), bold eggel (bald eagle) and chick ID (chicadee).

— LMO STEVE GEHRINGER, MANSFIELD

Planned it that Way

TRAINING SCHOOL — One morning all of us trainees were told that we would be subjected to pepper spray as part of our training, and as you can imagine, we were all quite apprehensive. All day I tried not to think about it, and was doing well until I discovered we were having stuffed peppers for dinner.

— TRAINEE RICHARD O. DANLEY, JR., HARRISBURG

Quality not Quantity

BRADFORD — My neighboring officer had a Field Note in the October issue about how proud he was in capturing more nuisance bears than ever before. What he didn't say, however, was that the combined weight of the five bears he caught didn't even equal the weight of the first bear I caught. Keep trying, Rick.

— WCO VERNON I. PERRY, III, MONROETON

"I Was Fooled"

ALLEGHENY — My fiancée reminded me of a comment I had made before arriving in this district. I said, "One of the only downfalls of my district is that there are no bears." Well, since I've been here, I picked up one that was killed on the Turnpike and tranquilized another in Whitehall Borough, about eight miles from downtown Pittsburgh.

— WCO DANIEL T. SITLER, OAKMONT

Unusual

TRAINING SCHOOL — I was doing some land management training in the Northwest Region when I spotted a family of coyotes, all of which were nearly jet black, and an albino red-tailed hawk — all within a half-mile of the Food & Cover headquarters building.

— TRAINEE DENISE MITCHELTREE, HARRISBURG

Normal day at the Office

WAYNE — Just before a Career Day program at a high school, one of the teachers mentioned that I would be dealing with a pretty rough and rowdy group. I walked into the class and quickly realized that she wasn't fooling. I whistled and said, "How many of you would like a job where your employer gives you a 4x4 truck, a boat, an ATV and uniforms, and while everyone else is in school or at work, you're out walking in Penn's Woods doing a wildlife survey or patrolling down a pristine river in your boat?" An hour later a bewildered teacher walked into a quiet class and asked me how I did it. I told her that everyone is interested in wildlife, and it doesn't hurt throwing in a few of the fringe benefits.

— WCO FRANK J. DOOLEY, TYLER HILL

Exodus

BERKS — New Jersey's bear population must be expanding as fast as ours, because in the past six months I've handled four bears from there and have heard of three others in neighboring counties. Maybe the bears aren't crazy about the beach.

— WCO CHUCK LINCOLN, LEESPORT

Habitat improvement program approved

THE COMMISSIONERS, at the August meeting, unanimously adopted a resolution proclaiming the agency's commitment to use \$3 from each resident and nonresident general license to fund habitat improvement and restoration efforts on state game lands and private properties enrolled in the agency's public access programs. The \$3 measure, part of the hunting license fee increase legislation approved late last year, calls for the dedicated funds to be used for land enhancements that will promote natural propagation of game and other wildlife.

The resolution heightens the agency's efforts to increase habitat improvements that will promote game population increases on lands hunters can access. The program aims to jumpstart a habitat enhancement program that had been hampered by funding shortages in recent years.

Additionally, the resolution directed agency staff to establish a grant program that seeks additional revenues from public and private foun-

dations and government sources, and administrative guidelines and regulations to make monies available to organizations interested in assisting the agency carry out habitat improvement projects.

In related action, the commissioners approved a request by Commissioner Dunkle to have staff look into the feasibility of establishing a land grant/corporate donor program to build upon the state game lands system.

"The concept isn't a new one," Dunkle explained. "But it is something the Game Commission must explore thoroughly. The benefits to sportsmen and wildlife could be immeasurable."

Dunkle said the program would enable the commission to accept donated lands that would not be available for hunting, such as commercial properties in populated areas. The commission could then sell or trade those properties and use the proceeds for habitat improvement or the purchase of other lands suitable for hunting.

Pheasant band study results reported

THE RESULTS of a study focusing on what percentage of agency game farm-raised pheasants that are taken by hunters showed a significant portion weren't making it to hunters' game bags. The study, the first in the United States to measure statewide pheasant

harvests, also provided recommendations and options on how to improve the pheasant program's efficiency.

The study showed that the earlier birds were released in advance of peak hunting days — season openers and Fridays and Saturdays — the less hunt-

ers took. The study also showed that pheasants released on public land had a greater chance of making it into a hunter's game bag than those stocked on private lands.

In the study, 6,770 banded pheasants were released as part of the nearly 200,000 pheasants released before and during the 1998 small game seasons. About a third of the banded pheasants had cash reward bands. Rewards ranged from \$5 to \$400; they were used to determine at what dollar amount all hunters who harvested a pheasant would report it to the Game Commission. The study, which issued checks for \$101,630 in reward money, showed rewards of \$75 or greater were required to obtain 100 percent reporting of harvested birds. Some hunters refused rewards. Overall, hunters reported 77 percent of all the pheasants they harvested, regardless of reward bands.

"The use of reward bands was a necessary component of this study," biologist Dr. Duane Diefenbach explained. "They enabled us to accurately estimate harvest rates. Sure, we spent \$100,000 to learn this. But we could save millions in the future with what we've learned. I've no doubt other states will be checking in with us to

learn more about our study."

Two recommendations were listed in the study:

1.) Implement changes to release pheasants as close as possible to days in which pheasants can be taken, with a priority on shifting hens released in September to the regular hunting season.

2.) Conduct a survey of hunters regarding options to increase harvest rates to ensure that the proposed changes are socially acceptable.

The study also offered nine options that could increase the pheasant program's efficiency. These options focused on: releasing fewer pheasants in the after-Christmas season and in September for dog training; expanding the either-sex hunting zone; releasing more pheasants on public lands; and announcing specific details about when and where pheasants will be released.

"The Game Commission has already begun to incorporate some of this study's findings into its pheasant program," noted Ross. "Our aim is to improve pheasant hunting for sportsmen and to make the agency's pheasant program more efficient. More improvements and enhancements will follow."

Commission participates in wildlife damage research co-op

THE COMMISSIONERS authorized the agency to provide \$15,385 to help fund activities of the recently created Northeast Wildlife Damage Management Research and Outreach Cooperative.

The co-op was developed by the Northeast Association of Fish and Wildlife Agency Directors to coordi-

nate research and the application of results to help the Northeast states address wildlife damage abatement needs in more cost-effective and socially acceptable ways, while minimizing the devaluation of wildlife resources or the reduction of their benefits to the people of the region.

Currently, species of primary focus

by the co-op include white-tailed deer, beavers, black bears, coyotes, Canada geese and cormorants. All states in the Northeast are currently experiencing increased wildlife damage and nuisance wildlife complaints.

The \$15,385 in funding approved by the commissioners will cover first year expenses of a 5-year startup period. Similar contributions from the agency are expected over the next four years.

Awards presented to life-saving employees and PENNdot

THE COMMISSION recognized three employees for helping to save a man's life at the Middle Creek Wildlife Management Area in late July. The employees — Wildlife Education Specialist Dan Lynch, Boyertown; visitors center worker Al Keith, West Lawn; and Food and Cover Corps worker Jeff Hickernell, Akron — worked together to save the life of a man who had a life threatening reaction to a bee sting.

The agency also recognized three Pennsylvania Department of Transportation employees for their habitat mitigation initiatives along the Myersdale bypass in Somerset County. Recognized were Dain Davis, Stu Kehler and Bill Savage from PennDOT's Hollidaysburg district office. The men were awarded an engraved wildlife conservation edition fine art print from the agency's Working Together for Wildlife series.

The National Wild Turkey Federation's Pennsylvania Chapter presented Commissioner Shaffer and Ross with a ceremonial check representing the more than \$150,000 the federation has invested in turkey habitat improvement and hunter education projects throughout the commonwealth. The federation also presented a ceremonial check for \$26,500 for a research project concerning the sup-

pressed turkey population in management area 7B.

In other action, the commission:

- Announced a new outreach initiative to encourage youth, senior citizen, civic and outdoors groups to visit and tour the Game Commission's headquarters complex.

- Authorized the agency to enter into a cooperative agreement with the Natural Resources Conservation Service to hire nine wildlife habitat specialists for up to four years to implement the Pennsylvania Conservation Reserve Enhancement Program. First year costs are \$274,000; second, \$430,000; third, \$449,000; and fourth, \$465,000.



PennDOT employees DAIN DAVIS, with PGC Executive Director Vern Ross, BILL SAVAGE and STU KEHLER were honored for their habitat mitigation work along the Myersdale bypass in Somerset County.

- Endorsed a course-specific remedial hunter education concept for game law violators required by law to take a basic course as a step in restoring their privilege to hunt and trap.

- Authorized the Bureau of Land Management to spend the remaining \$20,000 in Key 93 funds on a large walk-in cooler for the Howard Nursery.

- Directed staff to establish county lists of landowners interested in having hunters come to their properties

to hunt antlerless deer. These lists would then be made available to the public.

- Agreed to re-establish toll-free telephone lines to the agency's six region offices.

- Directed staff to study the feasibility of establishing a point system for Game and Wildlife Code violations. Thresholds would then be established at which point violators would lose their hunting and trapping privileges.

MAT report released

PLEDGING a commitment to improve, the Game Commission released the results of a comprehensive agency review conducted by the U.S. Department of Interior's Fish and Wildlife Service Management Assistance Team (MAT).

"The Pennsylvania Game Commissioners and commission staff are committed to improving our agency's operations," said executive director Vern Ross. "We are committed not only to improving our relations and communications with the public, but also to improving our internal relations and communications.

"I've been here four months and have patiently awaited the results of the MAT report, which will help us pave the way to further improvements. The report also will serve as a catalyst for additional employee-initiated improvements."

The Game Commission initiated the MAT review in 1997, as one of the first steps to take for the agency to regain credibility.

The MAT report, which commends the Game Commission for undertaking the review, offers eight primary recommendations based on data collected from employees and other stakehold-

ers for improving the commission's effectiveness.

"The report is not meant to be complimentary of the Game Commission," Ross said. "We requested the MAT review to point out our weaknesses and to provide recommendations on how we may improve in those areas and thereby improve the commission's overall effectiveness.

"Over the coming weeks and months, the commissioners and commission employees will review the recommendations. We will use this report as a guide to improve the agency's operations and structure."

The MAT review offers eight recommendations and suggested strategies on how to address problem areas. Ross noted that many of the recommendations have either been implemented or are in the process of being implemented.

For instance, the MAT report recommends the use of voice mail and e-mail as a way to improve internal and external communications. A new telephone system with voice mail was installed at the Game Commission headquarters September 1, and since late June the use of e-mail has been expanded greatly for improved commu-

nications both within and outside the agency.

“With the installation of our new telephone system in Harrisburg,” Ross said, “we now have voice mail and an expanded capacity to add more telephone lines, fax lines and computer links. Callers should have a much easier time reaching us, or at least have the option of leaving a message for someone to return.”

The report also recommends that the commission re-establish the toll-free “800” telephone lines in each of the six region offices. During the August commission meeting, a motion to re-establish the toll-free service was approved and will be implemented.

Another recommendation was to revise the deputy wildlife conservation officer training program. Ross noted that the revisions are being finalized and will be unveiled in the coming weeks.

Ross said that as the commission-

ers continue reviewing and discussing the MAT report they will make additional decisions on which recommendations to implement and how. He added that for those recommendations not implemented, the commission will provide its rationale.

“The Game Commission members and employees will strive to improve,” Ross said. “I believe in this agency, and I believe in its commitment to move forward. Working together we will make a difference.”

Ross said that he will form a committee to suggest how the MAT report may be implemented.

Following are the eight recommendations of the MAT report and a list of actions already undertaken by the commission. Some of the actions are in addition to those recommended by the MAT report.

As recommendations are implemented, the Game Commission will issue news releases. — *Jerry Feaser*

MAT Recommendation 1: Develop a unified and balanced agency culture within the Pennsylvania Game Commission where everyone has a clear understanding of the purpose and vision of the PGC.

PGC Action

- a) A completely revised training program for all deputy wildlife conservation officers is in the final review stages. This new training program will provide deputies with a clearer understanding of their role and importance to the mission of the PGC.
- b) Steps have already been taken to identify uniform wearing apparel for foresters, biologists, food and cover employees and other non-law enforcement personnel. Current law enforcement uniforms also are being reviewed.

MAT Recommendation 2: PGC commissioners should engage in a “Reinventing the PGC Commissioners” initiative to facilitate their focusing on policy-making initiatives rather than on PGC operations, and transform them as a group to a more credible leadership role.

PGC Action

- a) Commission President Vern Shaffer and Commissioner George Venesky began the process of identifying suitable consultants to facilitate the reinventing process at the September meeting of the International Association of Fish and Wildlife Agencies in Vermont.

MAT Recommendation 3: Increase trust within the PGC.

PGC Action

- a) Soon after coming on board as the new executive director, Ross began meeting with PGC employees in the regional and Harrisburg offices. He focused his out-reach efforts on discussing new ideas to improve the PGC's programs and effectiveness.
- b) The creation of the Deer Management Section within the Bureau of Wildlife Management signifies that the Game Commission is elevating the focus on deer management. Also, in naming Dr. Gary Alt as the section supervisor, the commission is seeking to reclaim the agency's and the public's confidence in this program.

MAT Recommendation 4: Improve internal communications.

PGC Action

- a) All agency news releases are being shared with Game Commission members and employees before being distributed to the news media. This ensures that commissioners and employees hear about agency news and decisions directly from the agency rather than "reading about it in the newspapers."
- b) As mentioned earlier, e-mail and voice mail is being used to maximize internal and external communications.
- c) Deputy wildlife conservation officers and retired PGC employees have been included in all mailings or communications with PGC employees and external publics. Those with known e-mail addresses have been added to the electronic distribution lists as well.

MAT Recommendation 5: Ensure the PGC has the right mix of human resource capabilities to accomplish their mission.

PGC Action

- a) New positions are being created to improve the PGC's communications, and criteria for those positions have been established to ensure qualified individuals are hired.
- b) In early summer, an "Employee Awards Review Committee" was established to review the current awards policy and recommend changes.

MAT Recommendation 6: Modify strategic planning processes and tie them to the budget.

PGC Action

- a) The Game Commission has created a policy director position. Once on board, the policy director will assist in the on-going development of the agency's strategic plan and its link to the budget.

MAT Recommendation 7: Improve services to the public.

PGC Action

- a) On September 1, a new telephone system was installed in the Harrisburg headquarters. The new system, which includes voice mail, doubled the telephone line capacity of the office, which allows for more telephone lines, fax machines and computer links.

- b) The creation of the position of press secretary is the first step in consolidating the flow of public information. Working with the Bureau of Information and Education, the press secretary will ensure that the PGC's message is consistent and clear.
- c) By maximizing the use of e-mail in distributing news releases, as well as posting all news releases on the PGC's website, information is flowing to the news media in a more timely and cost-effective manner. Other electronic means of distributing news releases are being pursued.
- d) The Game Commission will be hiring a webmaster to revise and update the PGC's website.
- e) The complaint-tracking system, which was mandated by Act 166 of 1998, will be implemented soon, if not already.
- f) The regional toll-free telephone lines are planned to be reinstated. A committee has been formed to assist with the implementation of this recommendation.
- g) Distribution of news releases to general news media organizations has been expanded, and news conferences are being held regularly.
- h) The Game Commission is focusing on "new or emerging issues of public concern" and is creating "action plans to effectively address these concerns." Through the recent news conference on black bears, the PGC has demonstrated its willingness to address public concerns. Other such efforts are being formulated.

MAT Recommendation 8: Modify current organizational structure to improve effectiveness and accountability.

SGL acquisitions

THE GAME Commission acquired 274 acres of new state game lands through three purchase agreements. The first and largest was the acquisition of 190 acres adjacent to SGL 39 in Venango County's Mineral Township from Frederick and Jean Erickson for \$76,000. In Cumberland County's

Silver Springs Township, the agency agreed to buy 79 acres adjacent to SGL 170 from the Central Pennsylvania Conservancy for \$31,600. In the final land deal, the agency acquired a 5-acre parcel adjacent to SGL 170 in Perry County's Rye Township from Donald and Ellen Danner for \$1,200.

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 570-398-4744

Southcentral — 814-643-1831

Northeast — 570-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

Frank Felbaum Scholarship Award

THE PENNSYLVANIA Chapter of the Wildlife Society is again making a \$500 scholarship available to a Pennsylvania high school senior interested in pursuing a career in wildlife ecology at a college or university. There is no chance for renewal.

The applicant should be in the top 50 percent of his or her high school class and have demonstrated an interest and commitment to wildlife through volunteer or work experience. A letter of recommendation from someone who can attest to the recipient's ability and interest is required. Additionally, the applicant

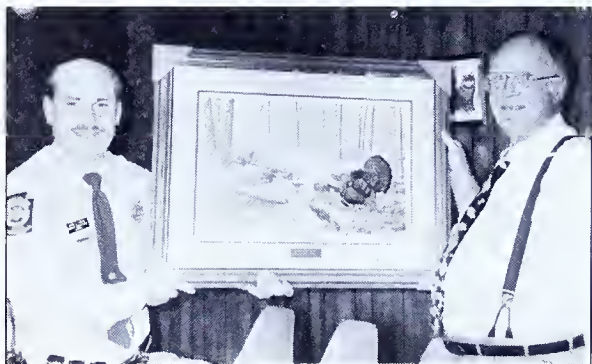
must submit an essay addressing the title, "Why I Would Like to Pursue a Career in Wildlife Ecology." Please include appropriate documentation of class rank and acceptance at a college or university.

The deadline for submission of materials is February 1, 2000. All submissions must include a phone number (with area code) so that the applicant can be contacted. Finalists may be interviewed by telephone. Submit materials to: Kristi Sullivan, Cornell University, 110 Fernow Hall, Ithaca, NY 14853, (607) 255-5508, e-mail: kls20@cornell.edu.

Incorrect starting time

AN INCORRECT starting time appears in the 1999-2000 Digest, for the week of October 24-30. On page 51, and on the pull section, the starting time for that week is incorrectly listed as 5:54 a.m. The correct starting time is 6:54. This is a particularly busy week for hunters, with archery deer and cer-

tain waterfowl seasons, and with the opening of general small game and turkey seasons on October 30. Common sense should guide sportsmen when they read the incorrect starting time, which is a full hour and a half before sunrise. The commission apologizes for this printing error.



DR. LARRY WOOTTON, right, of Clearfield was presented with a PGC Working Together for Wildlife Award as a small token of appreciation for all he has done for the agency. A veterinarian for almost 30 years, Dr. Wootton has treated many wild animals and helped the area wildlife conservation officers in many ways, from providing supplies to handling suspected rabies cases, all at no charge to the agency. WCO Dave Carlini presented Dr. Wootton with a print of "Misty Morning Rendezvous" by Marie Girio Brummett.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

Sooner or later, if you hunt long enough, you'll have missed opportunities due to everything from equipment failures to human judgment. The trick is to learn from such mistakes.

Successful Failures

THE DRIVE was coming through. This was just a little push, one driver zig-zagging through the timbered area up the hollow from me. As for standers, there was just me, leaning against a tree, behind a screen of leafy, downed limbs that had been propped up as a makeshift blind.

Before he began the drive, we checked to make sure I could draw my bow without the branches interfering with my shooting. I drew then lowered the bow. "It's okay," I said. At full draw, the bow limbs didn't reach the brush and the arrow cleared the top. I settled in to wait; he circled around to get the deer moving my way.

A 15-yard shot is what he said I should have when the deer came down the trail. And that's what I would have had, if my broadhead hadn't got stuck. The 6-point stood there, looking everywhere but toward me. I tried to raise my bow but it wouldn't move. I tugged, slowly and quietly but insistently. Something was caught. I glanced down and saw the broadhead tangled between twigs in the blind.

I must have let it slip in there unconsciously. Because the front end of the broadhead was pointed, it must have slid between the branches, which closed behind it. The back end of the broadhead was wide and flat. It caught on and wouldn't shake

loose from the closely spaced twigs. The wood wouldn't give, not without a great big yank, or a lot of time undoing the snag.

Frustrated, I jerked the arrow this time, which jiggled the whole branch. The buck snapped his head around, eyes wide and full of recognition. A high bound or two, and he was gone. I looked at the spot, a stone's throw away, where he had stood. Then I looked down at my arrowhead and gently twisted it free and sighed.

Kids would call it "messing up." Intellectuals might brutally opine that I had "performed inadequately." I've learned that such happenings are just another example of successful failure.

Nothing was hurt but my pride. That is the difference between acceptable and unacceptable failure in hunting. The acceptable "mess ups" are the ones we learn from or that just point out the funny foibles of being human. The unacceptable mistakes are the ones that involve failing to be safe with a firearm, or failing to choose the best, quick killing shot.

But those last aren't the topic here.

When the driver came through, he knew he'd been pushing that buck in front of him. "What happened?" he whispered. I half-smiled — already I was finding it funny — and shook my head. Then I

pointed to where the leaves had been kicked off the path. Twin furrows in the dirt showed where deer hooves had dug in, recently. I told him the story.

I noticed disappointment in his eyes, but, like mine, they changed quickly to merriment. The chance was gone to shoot the buck and I had goofed, but I'd learned something about watching my arrow tip for future reference. We both knew it would make our friends chuckle later. Such successful failures are so common in everyone's hunting life that the real joke is it could have happened as easily to any of us. It was just my turn.

Failures like this are a success if they instruct. "Boy, I won't forget that," we say. "I'll remember for next time." We all learn better through the "show, don't tell" method. It's just that sometimes we're our own teachers.

Another year I was walking up a steep, snowy point during buck season. My hunting companions were behind me. Being relatives, and chivalrous, they were giving me first crack if a buck deer appeared. What chance was there of that happening, I wondered, in all this heavy snow? I hadn't seen a buck all season. The weather discouraged me. I quit wiping the accumulation of wet snow from my rifle's cold barrel and scope and struggled uphill in the storm.

Of course a buck appeared, not far, a spike or forkhorn, as I remember, moved by other hunters on that game lands mountain. The deer was watching its backtrail, and I had plenty of time to steady against a tree and shoot. "Take him," my husband hissed in my ear. I looked through the scope at nothing. Gray nothing. It was plugged

solidly on the front end with snow.

Ah-ha, I thought. No problem. The lever action .30-30 I was using had a side-mounted scope, which left the iron sights available. I shifted my cheek on the stock to bring the open sights into view. Noth-

Bob Steiner



A FAST-WALKING buck has a way of moving into, through and out of a hunter's field of view quickly. Knowing when to shoot, getting the right picture, is sometimes the result of instructive failure.

ing again. White nothing. Snow lined the length of the barrel, an inch thick and compressed to ice. I couldn't brush it off. I lowered the gun in disgust. Meanwhile the buck had turned and was headed away, and none of us got him.

Sure, that was a failure on my part. I knew better, too. I knew I should have been periodically checking and cleaning off the top of the barrel and the scope, making sure at all times that I had a clear sight. I had gotten lazy and paid for it in a missed opportunity. What was successful about this mistake is that, to this day, I am particularly aware of keeping my sights open, whatever the weather. If it's raining or snowing, I'm always checking them, because I know, through experience, that the

buck you haven't seen for a week can appear at any moment.

In deer season I wear a soft, blaze orange vest over my orange-camo coveralls. It's not that I need orange over orange, it's that when it's misty rain or snow, I can tuck the scope of my rifle under the loose front flaps of the vest, while walking or sitting. When I didn't wear the vest, in bad weather I would cover the scope with a handkerchief I could snatch off quickly,

try to stay under the hemlocks for shelter, or I would wipe the scope lenses clean and dry, often. Other hunters I know use flip covers on their scopes. Maybe they've had a successful failure, too.

Moving from a stand site and then having another hunter shoot a trophy from the same spot right after you left is a nearly universal mistake. I've had this ex-

perience, as well as that of getting up after waiting for hours for nothing then walking into a shot. But then, I may have replaced the hunter who had just left that location.

A friend recounted a story about not being able to get a shot at a good buck that came by her treestand. The deer angled closer and closer, but she couldn't seem to find the right time or spot to shoot. The buck fast-walked out of sight, without her firing. She was crushed. I understood her dilemma, and hope I convinced her that the blunder had positive value, because it was so instructive. The so-called failure to get the shot was real life's way of telling her to practice more with her rifle, especially getting on the target and identifying a good sight picture. Another lesson was that sometimes deer don't stop moving, that even a walking buck can travel quickly into, through and out of your field of view. Pull ahead of the deer, find an opening be-

tween trees and wait for it to enter. Then make the minor adjustment for the shot.

Sometimes the failure is in seeing the deer at all, or not seeing it until the shot's impossible. Another hunter I know was sitting on a log, against an upright tree, when immediately in front of him, "about 20 feet away" a buck appeared. As the buck passed alongside him, he raised his gun to shoot but found the tree in the way. By the

time he could swivel around, clear the tree and shoot, the buck had hightailed it. "I should have remembered my bow-hunting," he said. "I could have held still and let that buck get well beyond me, then turned and taken a sure shot. I hurried."

The hunter's first mistake was failing to notice the deer coming.

The way the trees lined up, and the quietness of the damp leaves, let the deer approach him

without being seen. Now the hunter looks all around, and leans back or to the side a little, to check what he can't see when he keeps his head in one place. And he remembers, even in buck season, that he's a bowhunter.

I make sure, myself, that my firearm, ammunition, hunting clothing and license are in the vehicle before we leave. I'm especially diligent now because of an instance when I failed to do that, assumed my companions would take care of the chore, and nearly missed the opening morning of an antlerless season. I learned, once again, why it's not wise to assume.

With all the learning we're doing from these errors, it would seem we're striving for the perfect hunt, the perfectly performed day afield. Perfection isn't possible for anyone, of course. Occasional failure that takes us closer to the next hunting success is all we should expect. □

*Moving from a deer
stand site and then
having another
hunter shoot a
trophy from the
spot right after you
left is a universal
mistake.*



He's Gonna Shoot!



"H E'S GONNA shoot!" Art whispered excitedly from the passenger seat of my patrol vehicle. As we watched, the passenger of the pickup eased out of the vehicle and leaned the rifle across the top of the door. I was surprised to see flames jump six feet out of the muzzle in the dark.

"State officer, put the gun down!" I was on the shooter before he even knew I was there, and the look on his face was price-

less. I hoped he wouldn't hear the pounding of my heart, and as the adrenaline rushed through my body, I felt like Superman. Every wildlife conservation officer has experienced that same feeling when confronting a "bad guy."

While it's not unusual for a conservation officer, after a lengthy investigation, to prosecute individuals for illegally killing a deer, many officers go their entire

careers without actually witnessing it. For me, though, this was the second time in my short career that I actually witnessed an outlaw poach a deer in the closed season.

It all started with a phone call from Game Commission employee and retired Deputy WCO Art Storey. "Bill, a young lady just called and said she heard shots fired on the Del Stout farm up on Cobb Hill. She doesn't want to get involved, but she said the vehicle was a full-size blue Ford pickup with spotlights mounted on a chrome roll bar. When she looked out the window, the vehicle took off."

"Do you want to go?" I knew the answer before I asked the question.

"You bet. Pick me up at the house," Art answered.

Although I was new here in Potter County, I knew I could trust Art. Both he and his foreman, Dorwin Taylor, were retired deputies with outstanding reputations, and I had been impressed with their knowledge and professionalism from the day I had met them. Further, although Art no longer carried a badge, I knew his quick thinking would come in handy if things didn't go well.

When we reached the fields where the gunfire was heard, there was no sign of the vehicle or the violators. I didn't find a deer, but as I continued to search in a standing cornfield behind the alfalfa field where the deer had allegedly been shot at, I found a well-used trail leading into the corn. Following the trail, I came upon two small tents and other camping equipment. Now I knew the suspects would return.

After parking the vehicle behind the cornfield, Art and I began our vigil. It was 9 p.m. and it was anybody's guess how long we'd be here. The minutes melted into hours and Art began paying close attention to his watch. "Art, do you need to go home?" I asked for the third time. It was about 1 a.m., and I was sure something would happen soon.

"Bill, you know I don't want to, but Fran

wasn't expecting me to be out this long," Art answered.

"Okay, Art, but we better go now. I want to be back here by two, when the bars close."

It didn't take long for us to realize we had made the wrong decision. After going only half a mile, we saw a pickup approaching. As it passed, I saw that it was the truck we were looking for. I continued down the road, hoping the occupants didn't notice me, but I strongly suspected that they had. After turning around and getting as close to the field as I dared, I shut off the vehicle lights and drifted onto a farm road. To my surprise, the truck was stopped only 50 yards ahead of me. That's when we watched the passenger exit and fire the gun, as told at the beginning of this story. I demanded that the shooter lay down the gun and keep his hands where I could see them.

After ordering the occupants out of the vehicle, I separated the shooter from the other man and woman who were in the vehicle. While Art spoke to those two, I confronted the shooter, a New York resident by the name of Cleatus Judd. While proving that he had shot at a deer would be simple (I had seen it with my own eyes), I suspected there was another deer somewhere, and I wanted to know where it was.

"I just shot at a raccoon, and this is the first time I've ever been in this field," Cleatus insisted. After a few minutes of questioning, though, the shooter became more cooperative. Cleatus bowed his head and muttered, "follow me." I was somewhat concerned, not wanting to walk into an ambush, but I followed, feeling very uneasy. When we got to the small woodlot behind the cornfield, I saw what Cleatus wanted to show me. He led me along a fresh drag mark to two field-dressed deer hanging in a tree.

I led Cleatus back to his two friends, hoping that Art was able to get confessions from them. Art informed me that he had not questioned the individuals, feeling that because he was a retired deputy it would

be better if I took their statements. Once again I had to thank Art for his good judgment; I didn't want anything to jeopardize a good case.

I wondered how I would transport three individuals for an arraignment before the authorities. As a self-defense instructor, I knew that trying to transport the three in my vehicle was only asking for trouble. Fortunately, I have a good relationship with the local State Police, so I radioed for help. The dispatcher advised that he had only one cruiser out and that it would be awhile, but two troopers would be on their way to assist. Working in a rural area requires that the few law enforcement officers out on any given night must frequently depend on one another for back up.

By the time the State Police arrived to help me transport the prisoners to the district justice in Shinglehouse, I had complete confessions from Cleatus's partners, Ned and Ned's girlfriend, Jessie. The three had killed two deer earlier, and after hiding the deer, they had gone into town for some drinks. I began writing numerous citations for the three defendants while they waited in handcuffs in the district justice's office. The district justice began a preliminary arraignment for the three before they pled guilty to \$3,200 in fines; they knew they were caught with their hand in the proverbial cookie jar. The individuals also lost their hunting and furtaking privileges for several years.

When I finally reached home and began hanging the three deer in an apple tree in my yard, the morning sun was filtering through the small woodlot near my house. I intended to remove and photograph any bullets I could find in the deer. I've learned that I can never be too cautious when collecting evidence. Although the three had already pled guilty, I was concerned that they might have second thoughts after sobering up and request an appeal. I heard my screen door open and looked up in time to see my wife, Kelly, walking across the lawn. It was 7:30, and she was on her way

to work. I then realized that I had started my workday at 7 a.m. the previous day and badly needed some sleep.

While I felt good knowing that I had caught three individuals who were probably responsible for illegally killing countless deer, I also knew that without the anonymous phone call I never would have known about the deer. WCOs often hear reports about illegal activities weeks after the fact, when there is usually nothing that can be done about it. WCOs frequently have to piece together small pieces of evidence to put together a case. Quite obviously, the colder the trail gets, the more difficult it is to track down a violator. Some people feel that by getting involved they risk retribution from the outlaws. Others are just too apathetic to report the violations. While I know that I prosecute only a small percentage of the game law violations in my district, the number would be even smaller if decent citizens didn't get involved, and I'm always especially grateful when they do. Sometimes I'm unable to make a prosecution even after receiving good information, and a lot of hard work goes down the drain. Other times, though, all the pieces come together and it's especially gratifying. I presume the young lady who reported this violation probably found out the outcome, but if she didn't and she happens to be reading this account of it, I thank you from the bottom of my heart.

To witness a game law violation and do nothing about it is inexcusable. By doing so the witness becomes no better than the violator. To report a violation you can call one of the Game Commission's six regional offices. These phone numbers can be found in the blue pages of your local phone book or in the *Hunting & Trapping Digest*. Please leave your name and number, so an officer can contact you if further information is needed. Like this case, the officer can keep your name out of it. Any law enforcement effort is only as good as the citizens who back it up. □

Marcia spots a "triple trophy" on her mountain from her special . . .

Autumn Blind

TWELVE ROBINS flew across First Field from Margaret's Woods as I headed for Greenbrier Trail. Already a thin layer of snow covered the ground and trees encased in ice from the previous day's storm glittered in the sunlight. Despite the cold, a flicker called in the distance and a flock of white-throated sparrows foraged in the underbrush below the trail.

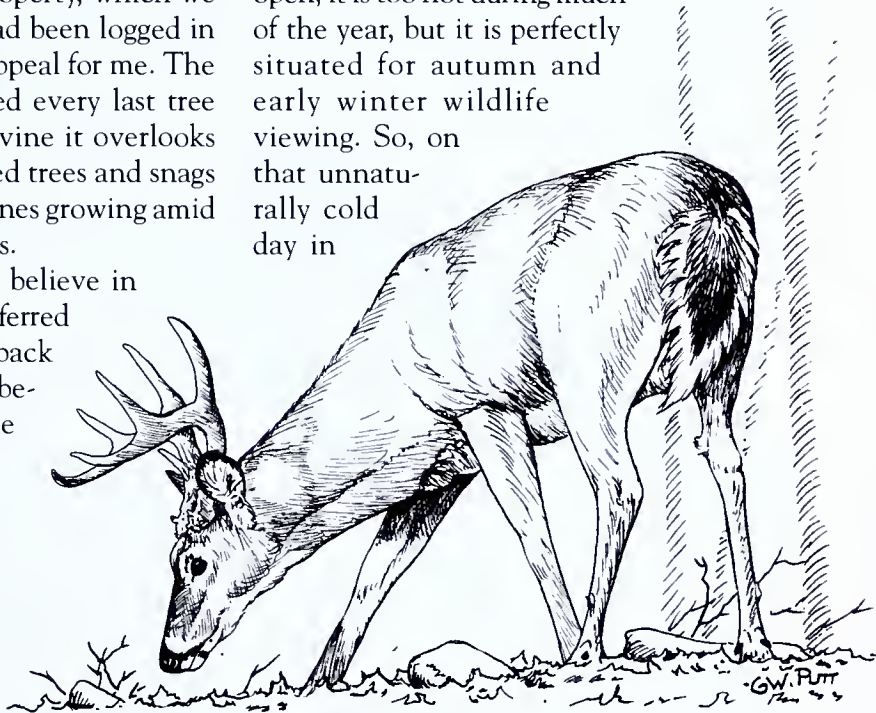
My destination was the hunters' bench blind perched halfway up a steep, south-east facing ravine. Built by the brothers on our neighbor's former property, which we had purchased after it had been logged in 1991, it had held little appeal for me. The lumbermen had extracted every last tree of any value, and the ravine it overlooks consisted of a few crooked trees and snags enshrouded with grapevines growing amid a sea of hay-scented ferns.

Furthermore, I didn't believe in hiding from wildlife. I preferred to sit on the ground, my back against a tree trunk, and become a part of the scene around me. In that way, I had watched an active red fox den for two years. I had had both chipmunks and shrews run over my legs, mistaking them for branches. Deer

would often stalk close, unsure of what I was.

On the other hand, the bench blind is not, strictly speaking, a blind. It consists of a sitting bench attached to a chest high bench that is enclosed by a skirt of camouflage cloth. Sitting on the bench, I can tuck my legs under the enclosure and use the top as I would a table, writing notes or sitting and watching, my elbows propped up and holding binoculars to my eyes.

Because it is out in the open, it is too hot during much of the year, but it is perfectly situated for autumn and early winter wildlife viewing. So, on that unnaturally cold day in



mid-November 1997, I was drawn to the sun-drenched ravine and the bench blind for the first time.

The view was spectacular. Sunlight glowed on the reddish-brown leaves still clinging to red oaks across the ravine on forested Laurel Ridge. The valley beyond was also bathed in soft autumnal light. At first the ravine seemed empty, but a little quiet pishing brought a blizzard of juncos up from the thickets below. A pileated woodpecker flew overhead, its maniacal call echoing in the stillness. Then, on the far side of the ravine, I spotted a big 6-point buck stalking a foraging doe that was not yet in estrus. She ignored him, and he eventually wandered away.

I continued surveying the far off view and the near-at-hand and was again rewarded as I saw what appeared to be a doe and a hen turkey foraging together on the far side of the ravine. I had never watched a doe keeping company with a turkey, so I remained riveted to the scene, watching as they moved closer. But when the doe got nose to beak with the hen, the turkey flapped her wings menacingly and the doe retreated.

I didn't want to alert them to my presence, so I waited until both had moved out of sight before leaving the blind. What I had

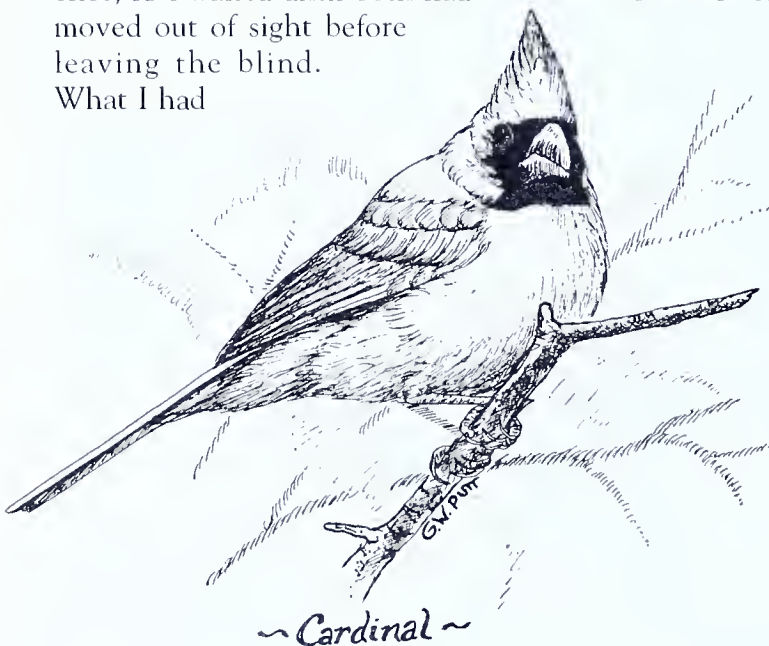
formerly thought of as a wasteland had suddenly become an intriguing place. I was determined to spend more time there, but because it was off my usual walking paths, I didn't return that fall.

Early last autumn, though, after talking it over with the hunters who frequented our property, our son, David, decided to connect Greenbrier and Witch Hazel trails through the bench blind ravine. Not only would the connection put the blind conveniently on my walking route, it would also give the hunters better access to what had become productive deer habitat — a now 6-year-old clearcut.

One late October morning, David and several of the hunters constructed the new trail. In early November I went over to check it out. Along Greenbrier Trail white-throated sparrows and cedar waxwings called. Sitting in the blind, I heard robins, Carolina wrens, a pileated woodpecker and juncos. Clouds scudded past, propelled by a cold wind, while here and there small patches of blue winked in and out. A few golden trees on Laurel Ridge still held nearly their full complement of leaves, but most were bare.

I trained my binoculars on the young forest across the ravine and watched a pair of pileated woodpeckers calling and flying from tree to tree. One was immediately chased off by a gray squirrel sitting on a branch. Robins fed on wild grapes and Hercules' club berries while a female pileated probed up and down a dead and pitted tree.

A sudden movement directly below me caught my attention. To my surprise, a 6-point buck walked past on the trail 20 feet away, his nose close to the ground. His inattention to his surroundings



meant that he was tracking a doe in estrus.

I had barely recovered from that sighting when a 7-point buck came up the ravine and stopped to rub his antlers against a sapling a scant 30 feet below the blind. For 10 minutes I watched as he not only polished his antlers, but also licked the areas he debarked and ate the remaining strips of bark still clinging to the sapling. Finally, he, too, trotted over to the trail and walked directly past me, probably in pursuit of the same doe as the previous buck. I was tempted to rename the trail Lovers' Lane.

I could scarcely believe my luck. For the first time in my life I got to watch a buck polish his antlers, and he had been so close that I could observe his every movement. Despite my elation, however, I remained in the blind, again drawn to the foraging woodpeckers and robins across the ravine. I even heard the faint cry of a migrating common loon overhead.

Finally, I tore myself away from the action-packed scene and walked across the ravine on the new trail. Dozens of robins, cedar waxwings and goldfinches feasted on Hercules' club berries. The pileated woodpecker I watched from the blind foraged on the same dead tree, as I stood close by. Robins and white-throated sparrows sang as well as called.

During the time I spent in the blind and along the new trail, I felt as if I was in the middle of a televised nature special. After six years, what had been a stripped and denuded ravine had taken on new life. The magnificent red oaks would probably never return, not in my lifetime, at least, but the locust saplings, striped maples and Hercules' clubs, as well as the thickets of blackberries, black raspberries, greenbrier and wild grapes had lured in enough wildlife to

keep me entertained for many happy hours.

Two weeks later, on a cold, partially overcast morning, I again visited the blind. I had barely settled down on the bench, when I heard movement to my left, beyond the tangle of blackberry canes and greenbrier that surrounds the blind. Turning my head slowly, I watched a black bear amble up the ravine 30 feet away. It disappeared behind a screen of brambles, but I heard the splinter of a Hercules' club sapling being shattered by the foraging bear. I remained frozen in place as all around me white-throated sparrows, robins, cedar waxwings, Carolina wrens and a bevy of other birds called, sang and fed.

After a long wait, I heard another splintered sapling topple over. It sounded close, but the bear was still hidden from me. Finally, it crossed the ravine above me and plodded slowly down the other side, moving in and out of view through underbrush. It was not a huge bear, probably between 150 and 200 pounds, and its soft footfalls made less noise than a deer. It never did see or smell me. Once again the blind had given me a unique experience.

I made several more visits to the blind in late November and December. None were quite as dramatic as the previous two but all were rewarding. Because the wild food crop was abundant, the bird life continued to be varied. One morning dozens of robins fed on the grapes and Hercules' club berries near the blind. Suddenly a large flock of growling European starlings chased off the robins and settled on the Hercules' club for a few seconds then whirled off. They continued to swirl in and out the entire time I sat there. Because we seldom see starlings on our mountain, except occasionally during migration, I enjoyed watching their synchronized movements.

For the first time in my life I got to watch a buck polish his antlers, so close that I could observe every movement.

On another morning the ravine at first seemed empty of life as I sat in the blind. Several times I heard the *boong, boong* of a raven, but I couldn't see it. A few cardinals also called and foraged. My reward that day was the sight of a female cardinal posing in a blackberry shrub with red leaves still clinging to it that matched the touches of red in her feathers. The scene provided a vibrant contrast to the mostly faded landscape of late autumn.

Spring in December weather kept the birds on the mountain far beyond their usual timetable, and at dawn on the last official day of autumn — December 21 — it was 40 degrees. The mountain glowed in the light of a misty, rosy sunrise. The previous night's rain had left droplets clinging to tree branches that glittered like jewels in the sunlight. Along Greenbrier Trail it smelled and sounded like spring as robins sang and called. The robins were eat-

ing wild grapes, and I scattered hundreds of them as I walked.

At the blind I watched robins calling and flying up from every direction. Fog twisted through the valley and seeped up the ravine. Once the robins moved on, they were replaced by large flocks of cedar waxwings and white-throated sparrows. Juncos, chickadees, titmice, a pileated woodpecker and ruffed grouse were also abroad.

That, it turned out, was the end of spring in December and of my trips to the blind. The next day the thermometer plunged to 16 degrees. A few robins lingered as it grew colder every day, but when it started snowing shortly after Christmas, the robins headed south at last. The snow and sleet that followed made the steep path to the blind impassable for the duration of the winter. But I'll be back again this autumn, seated for another live performance of nature at its best. □

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Statistics show that the archery season opener is the best buck and overall harvest day, but the best buck harvest weeks are typically the season's last two, when rutting activity picks up.

Tips for Hunting the Rut

A BOWHUNTER'S chance of taking a buck is best during the rut. While rutting can occur from early October through late January, the highest concentration of activity normally occurs from late October through the middle of November. While hunting the rut can be extremely productive, it can also be frustrating. To hunt the rut successfully you must draw on all the information you have learned about the deer within your hunting area during the first part of the season. During the first several weeks of the season, most bowhunters spend their time looking for the elusive bucks. I often hear the comment, "I saw a lot of does but couldn't find any bucks." Early in the season this is normal. Bucks tend to be nocturnal and are most often found in small bachelor groups. They make little connection with the does at this time, and it's common to see several does and no bucks. While this may be discouraging, remember that when the rut starts, the bucks will find the does, and knowing where the does are is like having money in the bank.

Although this sounds simple, the hunter can't just sit back and wait for the bucks to come to him. To be successful, hunters must understand how deer movements and actions change during the rut. Equally important is the hunter's ability to change techniques to suit these new conditions.

Deer activity greatly increases during the rutting period, as bucks search for does ready for breeding. As the rut progresses and more does come into heat, bucks will constantly be on the move. This increase in deer movement means that prime hunting hours, normally reserved for mornings and evenings, will be expanded through the day. During the peak of the rut I often spend all day in my stand, because anytime can be a good time. With increased deer movement taking place during the day it would seem as if you should see deer everywhere, but this is not always true. Although deer are moving more, they tend to be more concentrated, and if you're not in the right spot, you could get skunked.

Several years ago, during the rut, friend Randy Whetstone was searching for a buck

in a good feeding area that had held deer the first several weeks of the season. Randy spent several days hunting the area without seeing a doe let alone a buck. One evening his father, who had been gathering firewood on the other side of the ridge, mentioned that he had seen several bucks chasing does. Randy relocated his stand to that area, and over the next five days saw deer in various stages of the rut. On each day he saw bucks chasing does and running smaller bucks out of the area. During those five days he identified three different nice size and several lesser bucks. Although he had several opportunities to shoot smaller bucks, the bigger bucks never gave him a chance. During the same five days, two other bowhunters were set up in the feeding area Randy had vacated. They saw few does and never caught sight of a buck, although they were less than 300 yards away.

During the early part of the season, if I'm in an area with good sign and don't see any deer, I remain patient and wait, confident the deer will show up eventually. During the rut, if I don't see any activity after a reasonable time, I move. If you're not seeing deer, find them. Make note of any areas where you locate rutting activity. These areas normally produce results year after year.

Because deer focus on breeding during the rut, you can get away with some things that you normally wouldn't. One of the major advantages I have discovered is my increased ability to move my stand. Once you locate an active rutting area, take notice of the deer's movement within that specific area. Bucks will crisscross the area in pursuit of does. By observing their routes you can normally find two or three locations that will present the best opportunities for a shot. After noting these locations I place a treestand at each one. Often these stands will be within sight of each other, possibly 50 to 75 yards apart. Having these stands in place allows me to quickly change locations, so I'm near areas with the high-

est activity. When a buck comes through my area searching for a doe, I can normally expect him to go out of sight and reappear a short time later. Once a buck is out of my sight I take my best guess as to the direction from where he'll return. I then select the pre-positioned stand that I feel will offer the best opportunity for a shot.

I try to minimize the noise I make in moving, but I don't worry too much about it. At this time of year, noise associated with movement is common. While two weeks earlier in the season my movement would have frightened every deer on the mountain, during the rut deer not only are less likely to notice, they may even assume I'm another deer and come to investigate.

When hunting, keep a sharp eye out for does and carefully watch their actions. Any doe that moves quickly for 50 to 60 yards, stops, stands for 10 to 30 seconds, then repeats the process has a buck close behind. If you see a doe acting this way, try to get as close to her trail as possible. If a buck is following her, he'll normally appear within one to five minutes. The closer the doe is to being receptive to breeding, the closer the buck will be. The best place to be during the rut is between the buck and where he wants to be — and that doe is where he wants to be.

A buck that is tracking a doe he cannot see will have his nose to the ground and be constantly on the move. A buck that is within sight of a doe may be following with his head up and will normally stop whenever the doe stops, waiting for her signal to approach. If you see this stop-and-go motion, note where the doe stops, because the chances are excellent that the buck will stop close to the same spot, giving you an opportunity for a shot.

On four separate occasions during the rut I've had a doe with a buck in pursuit pass directly under my treestand. In each case the buck stopped short of my stand, looked right at me, put his nose to the ground and kept coming, stopping again and offering a perfect shot. There is no

doubt in my mind that these bucks saw me, and under normal circumstances would have been in the next county in two leaps. But their desire to follow the doe overcame their concern for me.

A good tip-off of an approaching buck during the rut is his grunting. Once you know what to listen for, you'll be surprised at how far you can hear him. I shot a buck last year that followed a doe directly to my stand. I heard him grunting for at least a minute before I saw the doe approach with him in hot pursuit.

Sound is an integral part of a deer's world; they use it to communicate with each other. The more a hunter knows about how a deer uses and reacts to sound, the better he can use that knowledge to his advantage.

The popularity of deer calls has skyrocketed the past several years. Although a great tool, they are misunderstood and more often misused. While it's common knowledge that deer use sounds to communicate, many hunters fail to understand how they use sound and what different sounds mean. While doing seminars throughout the country, I find most hunters have mixed success when calling deer. Their common question is "What am I doing wrong?" Although there is no easy answer, it's a good bet they are calling too loudly, too aggressively or too much. When deer communicate it's normally done in a subtle manner. The sounds are often soft, short in length and infrequent.

They serve to both attract and locate other animals. With the exception of the tending grunt, deer do not vocalize on a constant basis. Don't confuse deer communications with a teenager on the telephone.

When trying to lure a buck into your stand it's best to call infrequently and in

low tones. Aggressive or loud calling is seldom successful, for a very simple reason. The message that you are sending is "Hey, I'm over here and I'm tough. Step over here and I'll knock your block off." A buck, even a big buck, will tend to skirt around your location with his head and tail down. The message he is sending through his body language is, "I don't want a fight. I'll go away, sorry to have bothered you." He got your message, but you won't get the shot.

The next most common mistake is calling too often. Even if your calls are soft, frequent calling will only serve to help the deer pinpoint the source of the sound. That source is you, and once spotted, you'll have a hard time moving to get the shot. The idea is to attract the deer into your area, not up into your treestand.

This past season I witnessed just how carefully a deer pays attention to what is being said. It was mid-morning in early November. The rut was in full swing and deer were active. I spotted a deer moving slowly toward my stand, feeding on fallen acorns. As it drew closer I could see it was

Sandy Kasun



AUTHOR with a buck that was elusive in the early part of the season, but made a mistake during the rut. Hunting during the rut is challenging, exciting and frustrating, and for bowhunters it doesn't get any better.

a buck. With the rut in high gear I was surprised to see him slowly feeding when he should have had other things on his mind. Looking him over closely with my binoculars, I could see he had one antler snapped off and a point broken on the other antler. He was missing two patches of hair from his side and his rump was covered in dirt. He was definitely having a bad hair day. It was obvious he had come out on the bad end of a fight. The buck fed within 30 yards of my stand for more than 20 minutes. Slowly I worked my grunt call into position. I did not intend to take a shot but was anxious to see his reaction. He had his head lowered and was facing away from me when I gave one low grunt. He took off like he had just backed into a hot stove. He thought I was another buck, and that he was being challenged. He was in no mood for another fight that day.

Although the above may be an extreme

example, it proves that deer do listen, not only to the sound but also what is being said. When using a call with the hopes of attracting a buck, take the role of a smaller less dominant buck. Call softly and low. Do not call aggressively or too much. The chances of a nice buck responding will be much greater. Remember, it is better to call softly and carry a big stick.

During the peak of the rut, rattling and grunting may or may not produce results. If a buck is hot on the scent of a doe in heat the last thing he may care about is that two other bucks are fighting. Personally, I've found rattling more effective earlier in the season. Grunting during the rut may draw in a curious buck, but the chance of turning a buck that is on the track of a hot doe is slim.

Hunting the rut is challenging, exciting and frustrating, and for bowhunters it doesn't get any better. □

***Fun Games* — By Connie Mertz**

Code of Ethics

Unscramble the words below to complete the statements.

1. Hunting is a GLIPERVIE. _____
2. Hunters are SLEPIBERSON for their actions. _____
3. Game laws help protect PLEEPO, REPPYORT and FLILEWID
_____, _____, _____
4. Safe MERAFIR handling is essential at all times. _____
5. Hunting on private land without permission is SPISENTRAGS.

6. Taking game out of season, after legal hunting hours, or taking more than
the limit allows is called CHOPIGAN and it's GLALLIE.
_____, _____
7. Ethical hunters think TYEASF first and THOSINGO second.
_____, _____

answers on p. 64

Quality versus quantity are aspects that come into play when selecting a reloading press, finding one to suit your needs shouldn't be too difficult.

Single-Stage Versus Progressive

I DON'T care how many claims are made about progressive reloading presses, they can't turn out accurate ammunition," a fellow said after examining a Hornady Lock-N-Load progressive rifle press. "I've been loading my own ammo for nearly 30 years, and no progressive press can match what I get out of the RCBS A-2 single-stage press I bought in 1967. It's still cranking out top quality reloads."

Because this statement was made to a

group of younger fellows just last year, I'm sure I was the only one listening who knew about the A-2 press, which loads both shotshell and metallic cartridges. It's a heavy duty press with an "O" frame that prevents springing that was prevalent in some "C" frame presses of that era. It cost around \$70, a lot of money back then.

I have no idea how many times I've heard statements about the inability of progressive presses to load top quality ammunition.

I have to admit that there were problems with early progressive presses, and it was easy to make mistakes, especially when the operator was going for mass

Helen Lewis



DON LEWIS seals the crimp on a shotshell reload with an electric glue gun. The Lee Load-All single-stage press suits his needs just fine. This set-up enables Lewis to load a few shells at a time for hunting.

production. The older progressive models lacked many features that are now standard on newer models. A major drawback in the early years was getting a double charge of powder in a case or no powder at all. One model I used required throwing the powder charge manually, and the operator had to really concentrate to make certain a charge was thrown or, worse yet, that a charge had already been dropped.

Things didn't improve much when progressive rifle presses were upgraded with powder measure operating rods. Every time the press handle was activated, a powder charge was dropped. The idea was a good one, but even a minor problem in indexing, for instance, could throw off the process. Similar problems existed with progressive shotshell reloaders.

The unwanted dumping of a powder or shot charge was finally solved when case-activated powder and shot measurers were installed. The operating handle can be pulled a dozen times, but if no case is in the powder or shot station, no powder or shot is dropped.

The statement the fellow in the begin-

ning of this article made wasn't entirely wrong. One thing that must be discussed is what constitutes "accurate" ammunition. There are many facets to that question. It's reasonable to assume that if a reloaded round fits into the chamber, will fire and meet the accuracy requirements needed for the type of shooting it was loaded for, it's a good round. I guess that statement is also questionable.

The error in our thinking is that a round that is reloaded one step at a time has to be better than one more or less mass produced. Here again, that should be true. On a single-stage press, the operator is able to examine every round after every reloading step. That's also possible on some progressive presses, but it defeats the purpose of using a progressive press. Being able to do examine every round after every step is not a great advantage if a progressive press is trustworthy, and this is what separates the high quality press from the mediocre.

Maybe a fair question is, "Who needs a progressive press?" For shotshell shooters there is no argument. A dedicated trap, skeet or sporting clays fan can burn more than 500 rounds per week. That would be a lot of work on a single-stage unit. For such shooters, a MEC 650, Lee Loadmaster, RCBS AmmoMaster, Hornady A-1 or Dillon's new SL900 is a must.

The argument can be put forth that metallic cartridge shooters do not need mass reloading. Most Pennsylvania woodchuck hunters will agree, but shooting at the "dog" towns in the Great Plains states casts a different light on the picture. Several years ago, my two sons, Jim Peightal and I fired about 3,000 rounds on a 4-day prairie dog hunt. Jim Peightal fired more

Helen Lewis



A CHRONOGRAPH is a must for serious handloaders. It's impossible to evaluate a reloaded round without knowing its muzzle velocity. Trajectory arcs cannot be figured or estimated without knowing how fast the bullet is traveling.

than a thousand rounds himself. I have to add that we did some fair shooting, but strong Nebraska winds played havoc on shots more than 175 yards.

Handgun shooters realize many benefits from progressive presses. A friend burns a lot of .44 Magnum handgun fodder. He has an RCBS 4x4 progressive press set up for his favorite load combination. After firing 25 or more rounds in a practice session, he reloads the empties immediately. Everything is set to go and there is no fuss or bother.

After getting involved with the Remington 6mmBR cartridge, I added an RCBS Piggyback to an RCBS Reloader Special 5 press, which converted the single stage press to a progressive unit. It's set up for the primer, powder and bullet combination that produces the tightest 100-yard groups. I'm mentioning this because I did the early testing of the 6mmBR using the single stage press with Neil Jones Benchrest dies. I seated the primers with K&M's dial indicator primer seating tool. Powder charges were dropped from a Neil Jones Benchrest powder measure. Every effort was made from primer pocket modifying to finding the proper gap between the bullet and the throat with a Stoney Point overall length gauge. I used Berger 70-grain custom bullets. As you might imagine, it involved a lot of work, but when the heavy barrel outfit consistently printed ½-inch or less groups at 100 yards, the work certainly seemed worthwhile.

When I switched to the Piggyback RCBS system, I did not expect to get the type of accuracy that came from using handmade benchrest equipment. To be honest, I'm not getting that type of accuracy on a consistent basis, but few groups stretch much beyond ¾-inch. That's more than adequate for long range chuck shooting, and I can reload a box or two of empties in a matter of minutes.

Reloading an empty one step at a time should have a slight edge over reloading them on a progressive press, and not that

long ago that was probably true. This gave credence to the argument still put forth that the single-stage press is superior to an automated one. If that were true then, it isn't exactly true today and here's why.

There are three major things about the progressive press to consider: the quality of material used, workmanship and the integrity of the manufacturer. Simply put, will the press meet its advertised claims and are they within the realm of reason?

For instance, on the new Dillon SL900 progressive shotshell reloader, John Novak and I working together can turn out 10 to 13 rounds per minute, which translates into 600 to 780 rounds an hour. Personally, I feel it would be hard for a single operator to maintain that speed, because he would have to stop six times to fill the primer tray and eight or nine times to dump fresh empties. Also, the powder and shot hoppers would have to be filled. With all the SL900 has to offer shotshell reloaders, it still must be tended to, and that takes time. Although I have not seen a production estimate from Dillon on the SL900, it has all the qualifications to be called a high-volume shotshell reloading press. From the tests John and I conducted, the SL 900 proved it is a high quality press, and I doubt if anyone will dispute the integrity of Dillon Precision.

My efforts here will not lay to rest the arguments over single-stage versus progressive presses. Turkey hunters argue constantly over rifle versus shotgun. Fans of the .22 Hornet and .218 Bee quickly defend their choices. The same holds true with dyed-in-the-wool .30-06 fans who still snub their noses at the .270 Winchester. However, modern technology has brought the progressive press to a new dimension of quality. It's a far cry from progressive presses of yesteryear. I'm convinced that for general hunting and range work, the accuracy variation between the single-stage and a high quality progressive press for either shotgun or rifle reloading is not enough to make a difference. □

In the Wind

By Bob D'Angelo

Hunters took a record-breaking 194,670 deer during Missouri's firearms season in 1998 — up 8,218 from the previous year and 7,973 from the previous record set in 1995. There were 15 reported firearms-related deer hunting incidents, including one fatality. Another deer hunter died from a fall from a treestand.

The U.S. Fish and Wildlife Service and National Park Service have abandoned their attempts to restore red wolves in the Great Smoky Mountain National Park in North Carolina and Tennessee, which began in 1991. Biologists reported that low survival rate of pups, and disease and malnutrition among the wolf population are the reasons for terminating the program.

During wet springs, the Canadian province of Saskatchewan supports more than 25 percent of North America's breeding mallards and pintails.

Hunters took 8,802 turkeys during the fall season in Virginia in 1998 — down 22 percent from the 11,168 taken in 1997. The decline is the result of poor reproduction during the past two years.

One year after gun owners were forced to surrender 640,381 personal firearms to be destroyed by the Australian government, in a program costing \$500 million, the crime rate has dramatically increased. Homicides are up 3.2 percent nationwide (in the state of Victoria, homicides with firearms are up 300 percent), assaults are up 8.6 percent, and armed robberies are up 44 percent.

Hunters in Wisconsin took a record 3,121 bears in 1998 — up from 2,178 taken in 1997. There were about 14,000 bears in the state prior to the '98 season.

In 1997 Pennsylvania led the nation in number of hunters, with 1,091,568, according to the U.S. Fish and Wildlife Service. Michigan was second with 952,584 and Texas was third with more than 942,000. Massachusetts had a whopping 34 percent increase in number of hunters in 1997 from the previous year.

Idaho's approximately 204,000 hunters enjoyed the safest hunting season on record in 1998. Three non-fatal firearms related injuries and no fatalities were reported.

Bills in Washington and Vermont intend to stop the use of foot-hold traps and create more burdensome requirements to harass trappers. In Washington, House Bill 1057 would prohibit the use of all foot-hold traps. The bill also requires written permission from landowners to trap, a restriction not applied to any form of hunting. Senate Bill 15 in Vermont would, in addition to banning the foot-hold trap, require trappers to notify in writing all abutting landowners of trapping occurring on neighboring land and provide a map of trap locations.

Answers: privilege, responsible, people, property, wildlife, firearm, trespassing, poaching, illegal, safety, shooting.

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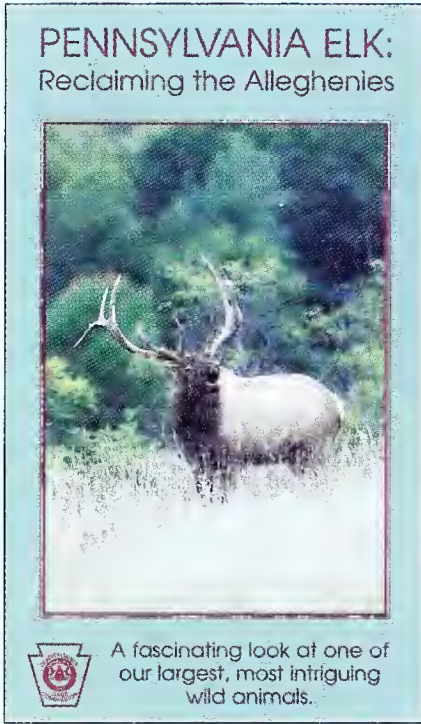
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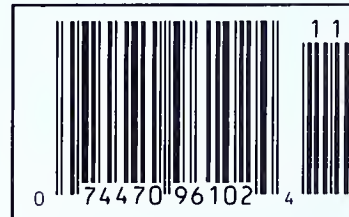
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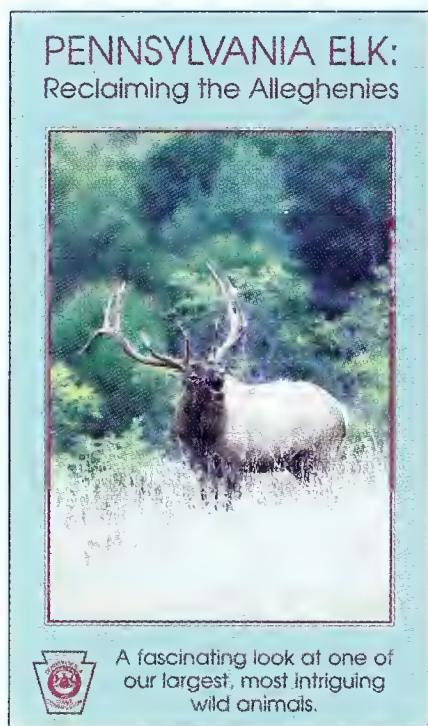
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—DOUG PIFER

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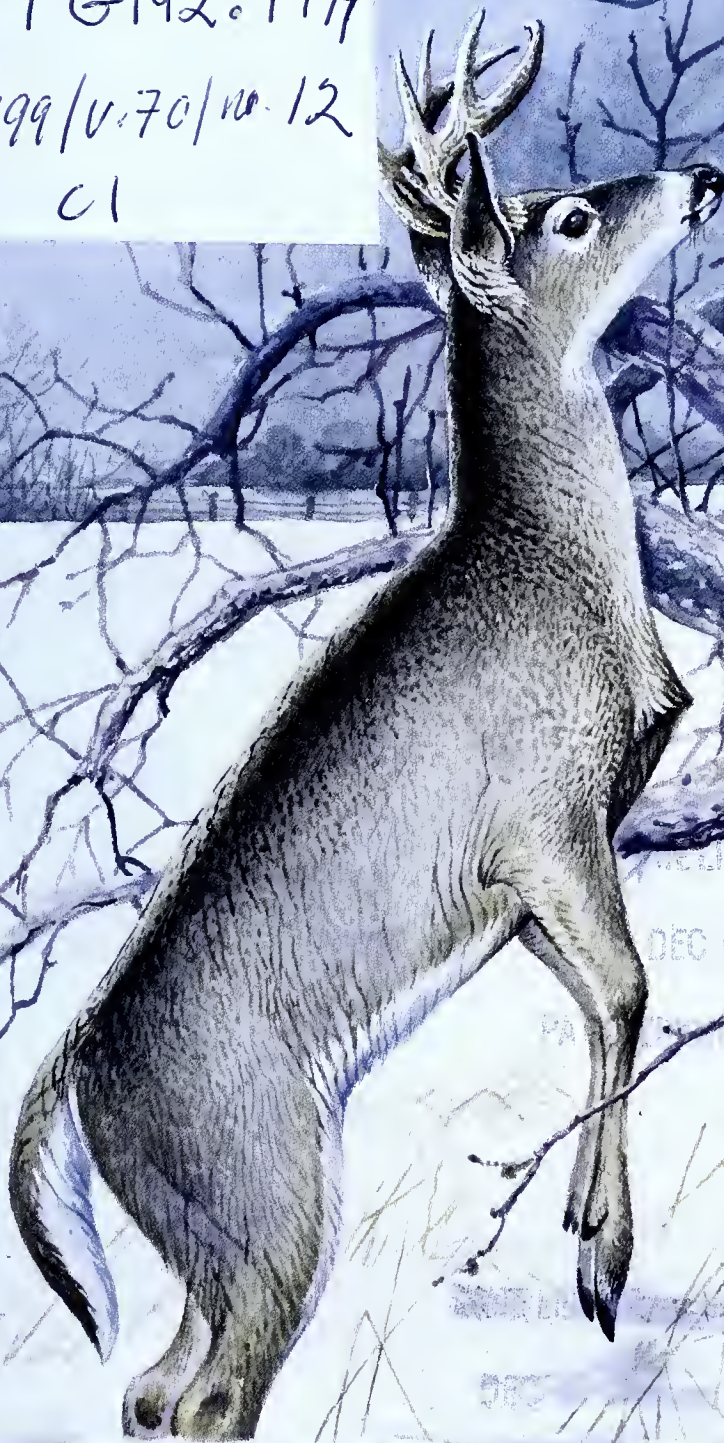
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Lands for Wildlife

"LANDS FOR WILDLIFE" is a new Game Commission program designed to encourage more people — hunters and nonhunters, young and old — to contribute to our land acquisition and wildlife habitat management programs. Key to the program is the utilization of the "Conservation Stamps" the agency had printed a couple years ago, when it appeared that a habitat stamp was going to be part of the hunting and trapping license fee legislation under consideration at the time. As it turned out, that didn't occur.

For many years people have been looking for ways to help the Game Commission buy land. Many have given substantial donations of land and money. The conservancies in the state and other groups such as the National Wild Turkey Federation and the Rocky Mountain Elk Foundation have also provided tremendous support to our land acquisition and habitat management efforts.

This new program, though, will provide an easy way for everybody to support this cause.

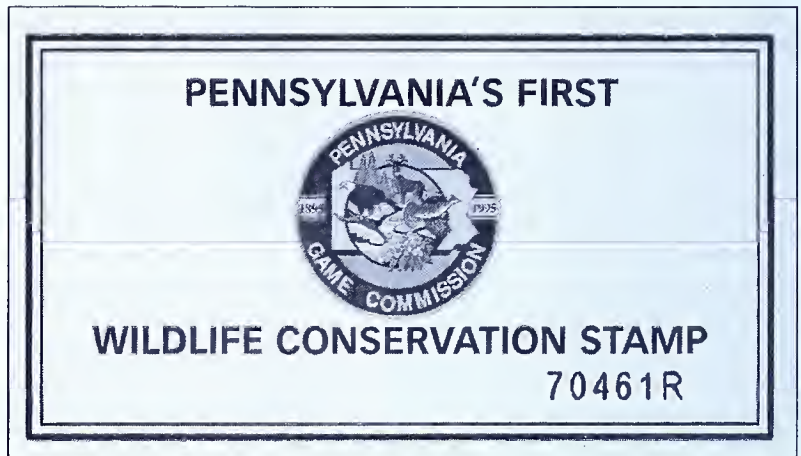
The stamps are selling for \$3 each, tax included. They may be ordered from the PGC at Dept. MS, 2001 Elmerton

Avenue, Harrisburg, PA 17110-9797. They also are available at Game Commission region offices, and the Middle Creek and Pymatuning visitors centers.

Lands for Wildlife has also been designed to get youngsters involved in the protection and enhancement of Pennsylvania wild areas. The stamps will be consigned to schools and conservation organizations for sale, with the groups retaining \$1.50 from each stamp sold. The group's proceeds may be used to fund conservation projects or any other project of their choosing.

The Game Commission began purchasing lands for wildlife in 1920. Since then more than 300 tracts totaling almost 1.4 million acres have been acquired. That we have such outstanding hunting is in no small way due to these acquisitions. Just as important, these lands are the only lands in the state managed specifically for wildlife, which makes them extremely popular for all outdoor enthusiasts.

If, like many others, you've often wanted to help the Game Commission buy and manage land for wildlife but didn't know how, here's your chance. — *Bob Mitchell*



letters

Editor:

What a thrill. Thanks to the PGC, Penn State and Frostburg State, I got to watch a fisher on SGL 24 in Forest County. I was bowhunting when the rare animal came within six yards of me, trying to find something to eat. The animal sure was beautiful.

B. MILLER,
DUNDEE, OH

Editor:

As a new biology teacher, I was pleased to find a copy of *Game News* in my school mail box. I was surprised to see there's still so much interest in hunting dogs, even a squirrel dog.

G.P. HRORAKES,
WICKHAVEN

Editor:

I would like to let you know how happy the early youth squirrel season has made me. To see my three grandsons go into the woods and see their hunter safety course and home training at work is something that cannot be put into words. They sure made me a proud "Pap."

J. KONYAR,
NEW COLUMBIA

Editor:

Hunting in Pennsylvania for more than 50 years, I've always looked forward to the first day of buck season on the Monday after Thanksgiving. To change the traditional opener to another day, particularly a Sunday, would be a mistake.

T. EBERLY
ELKLAND

Editor:

The recent articles about sharing time with a dog could not have come at a better time. Having just lost our springer of 14 plus years, you helped soften the pain a lot.

Thank you.

D.R. MILLER,
OLEY

Editor:

I enjoy deer hunting a lot, and I sure hate to see all the farmland going into building parking lots.

D. BAHNER,
MYERSTOWN

Editor:

I have some advice for all those who complain about the length and timing of the archery season: Take up the active and enjoyable sport of archery hunting. You won't regret it.

J. FREER,
PORT ALLEGANY

Editor:

I'm 11 and I can't wait until I get old enough to hunt. I've been reading *Game News*, and so far I've shot a .30-30, .243 and a 20-gauge shotgun.

B. BOSTAPH,
BLAIRSVILLE

Editor,

To make bird food, I heat in a 6- to 8-quart kettle 4 cups of water, 2 cups of sugar, 1 pound lard or bacon

drippings. When the lard is melted, I add about 3 cups of peanut butter and any other ingredients I have on hand, such as cornmeal, old cereal or crackers, flour, raisins or nuts. I then form the mix into balls, which can be frozen. These can then be placed in suet feeders, net onion sacks or hung on a nail.

G. TRUAX,
CRYSTAL SPRING

Editor:

My son Ryan and I would like to thank the Game Commission for the opportunities provided by the youth squirrel season. Within a 4-hour span, we saw a mature bald eagle, red eft and painted turtles; my son impressed me with his attention to gun safety while using his scoped .22 to snipe his first bushytail; and using my bow, I filled an antlerless tag. It was a day we will forever remember.

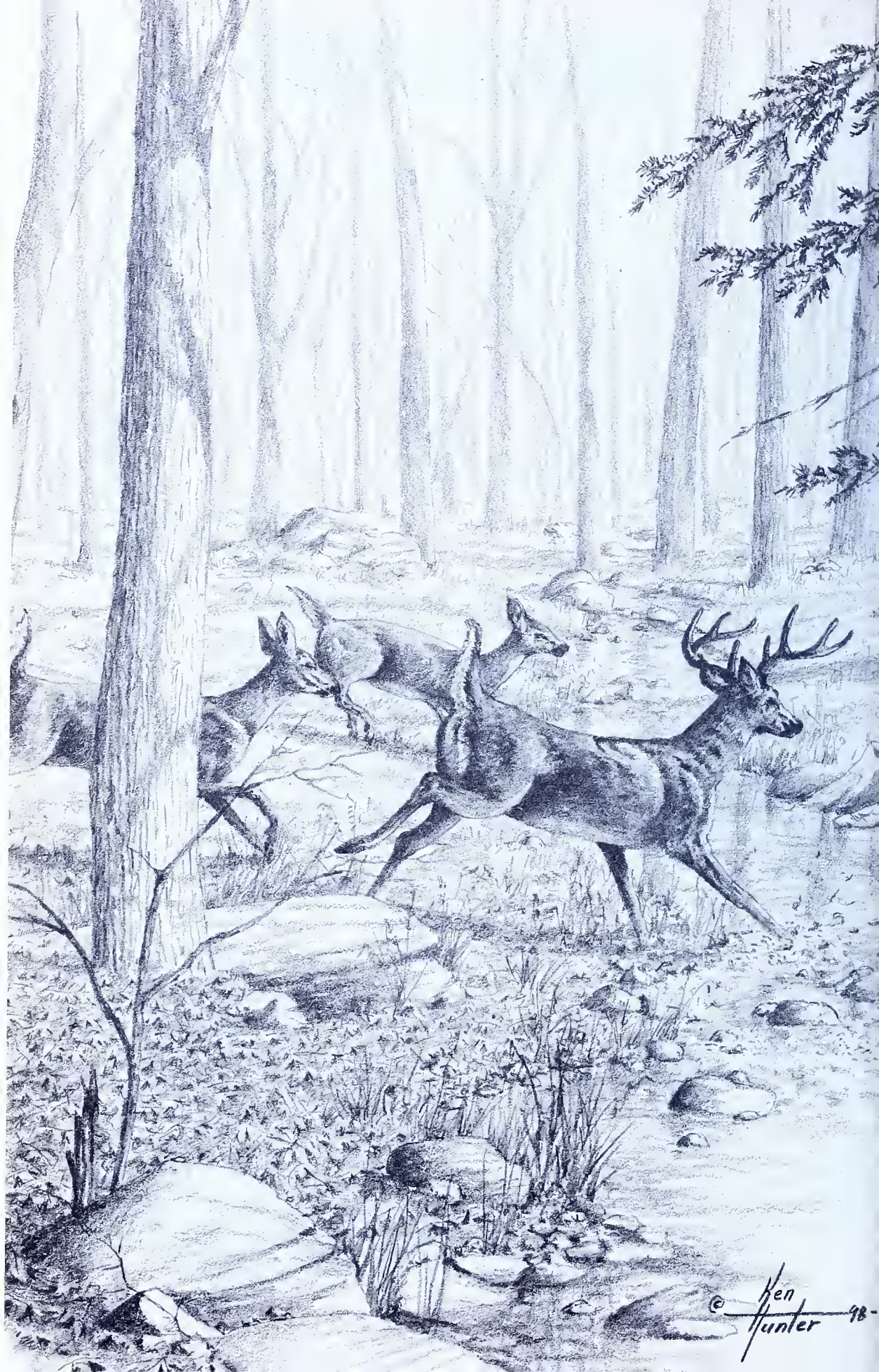
D. EVANS,
EVANSBURG

Editor:

I want to thank the *Game News* staff for their quick response in replacing my missing issues. Every year when my mail is forwarded to New Jersey, my *Game News* gets lost. It takes only a phone call for me to receive my missing magazines.

J. BRENNAN,
KING OF PRUSSIA

**Your comments are welcome. Mail them to "Letters,"
2001 Elmerton Ave., Harrisburg, PA 17110-9797.
Letters will be edited for brevity and clarity.**



Game Lands Double

By Ralph Martone

LEANING into the drag rope again, I felt the cord bite into my shoulder. Then, as the rope grew taut, it began to squeeze my hand where it was wrapped several times to provide a secure grip. The deer stretched forward and finally began to move. By the time I had taken several steps forward, the tightness in my hand and shoulder began to ease as the deer slid across the wet leaves on the logging trail.

I was about to quicken my pace, taking advantage of the deer's momentum, when a shot rang out to my left. Stopping, I stepped back, allowing the rope to slacken. Two more shots came from the crest of the ridge that paralleled the trail I was now following. Turning towards the shots, I mentally drew a line to the stand where I had placed my son, Matthew, before first light. The location seemed right.

I looked toward the ridge for several more minutes before turning back to the trail and my deer. It was now 10 a.m. on the first day of buck season, and I had been dragging the wide-racked 8-point for a little more than two hours. With another hour of dragging to go, it would be close to mid-day before I would have a chance to get back to check on Matthew. For a fleeting moment I considered stashing the buck in the nearby clearcut and heading over the ridge to check on my son. But leaving a tagged 8-point buck sporting a nearly 20-inch spread unattended on the first day of buck season seemed like a bad idea, so once again I turned in the direction of the truck and leaned into the drag rope. After I reached the parking lot, I thought about

the events leading up to today's hunt.

Just a week earlier, Matt wasn't sure if he would even be able to hunt on the first day of buck season. A high school sophomore in his first year on the basketball team, Matthew was disappointed to learn that the coach had scheduled practice for 4 p.m. on the first day. Because camp was two hours from home, Matt was faced with the prospect of leaving the woods just after lunch on opening day.

Although Matt had turned 16, he would not have a driver's license until after the deer season opener. That left only one option: I would have to drive him home in time for practice. The thought of leaving the woods early on the first day of deer season was a difficult one. In most years, I didn't leave my stand before quitting time, except on the rare occasions when I got a deer early in the day. My oldest son, Michael, a senior on the same basketball team, had already decided to miss the first day of buck season rather than jeopardize his starting position on the team. Feeling bad enough about Mike missing the opener, I was determined to do whatever necessary to have Matt in the field.

Arriving at our hunting camp in Venango County on Saturday, Matt and I got it ready for the rest of the group's arrival the following day. I had been to camp almost every weekend throughout archery and turkey season, so the kitchen was already well stocked

and the wood piled high. Saturday afternoon was spent looking at old hunting spots and searching out new ones. By the end of the day Matt and I were discussing our options for Monday morning. As usual, it seemed that the more scouting, deer sign and new territory we explored, the harder the decisions became for choosing a stand.

Matt had killed a 3-point along the game land's border the previous year, but since then the hillside had been logged, changing the travel patterns of the deer. After plenty of discussion and lots of thought, Matt decided to post along a new logging road that paralleled the game land's border. The woods road led through the freshly logged treetops to the stand where he had taken the buck the previous year. This stand would keep Matt in an area he knew well. Once Matt had chosen his stand, it was my turn.

For the past four years, Matt had proven to be a safe and ethical hunter, and deep down I knew he would be fine on his own. However, I still wanted to be in the same area, but far enough away that Matt wouldn't think I was interfering. Fortunately, a couple hundred yards farther into the game lands was a spot we referred to as Mike's Log.

Mike's Log got its name from my oldest son's first doe hunt. On that day we had planned to cross the ridge and hunt a wooded point overlooking two small hollows. On the way to our intended stand, Mike, loaded down by heavy clothes, sat on a convenient log to rest. In the predawn blackness, with no idea of the surrounding area, he decided this was where he would post. The log was out of the wind and provided a comfortable backrest. Knowing he was tired, I gave in and chose a seat a few feet away.

Two hours after daylight two does

stand, then began climbing the hillside far to our right. As I tried to follow them along the wooded hillside with my binoculars, Mike said he had a clear shot at one of the does. I gave him permission to shoot. At the shot, I turned to see Mike facing the other way. While I had been following the pair of does up the nearby hillside, Mike watched a third deer climb the opposite side of the hollow.

With Mike directing me, I crossed the stream and climbed the opposite ridge. Using hand signals, he directed me right to where the doe had been standing when he shot. One look around was enough to convince me he had made a good shot. Twenty feet up the hill lay a doe shot cleanly through the chest. Looking back across the hollow to where Mike stood, I estimated the distance to be at least 200 yards. Mike had just taken his first deer with an offhand shot at that distance. Ever since, the stand has been "Mike's Log."

With thoughts of logging roads, comfortable logs overlooking steep hollows and, of course, big bucks, Matt and I went to sleep on Saturday night anxious for Monday morning. Sunday morning arrived with the sound of rain pattering on the roof and tapping the camp windows. Any weather short of white fluffy snow is a disappointment to a deer hunter. But on Sunday, a light rain isn't completely unwelcome. The deer hunter is an optimist, knowing light rain is just snow waiting for the temperature to fall a couple of degrees.

Matt and I puttered around the camp and read hunting stories from the tattered outdoor magazines that are a requirement for any good hunting camp. In deer camps, hunting and fishing magazines represent the ultimate in recycling. A 10-year-old magazine is browsed and read cover to cover as if something new has magically appeared in it.

Throughout the day new arrivals were greeted and piles of gear grew in every corner of the camp. Ranier Devido, his sons Robert and Bill, and Bill's five boys rounded

out the rest of our party. Each new arrival contributed to both the growing excitement of the upcoming hunt and the increasing piles of foods and snacks. Before long, everyone had settled into a comfortable chair, but not before the table had disappeared under a mountain of buns, loaves of bread, chips, pretzels and candy.

Supper, a visit to friends at other camps, and a shopping trip into Tionesta helped pass the day. Bedtime approached with last minute preparation for the morning's departure occupying everyone's attention. Sandwiches were made and candy bars stuffed into pockets that already bulged with cartridges, drag ropes and compasses. At a hunting camp, setting the alarm clocks signals actual bedtime. Once the alarms are set, everyone is expected to do his best to fall asleep.

I don't know how other hunters handle falling asleep the night before buck season, but after 25 years of deer hunting, I still lie awake for a long time before slipping into a brief slumber before the alarm jolts me back to consciousness.

Matt and I were the first to leave the warmth of the cabin to drive to the game lands. Knowing we had to leave the woods by 1:30 that afternoon

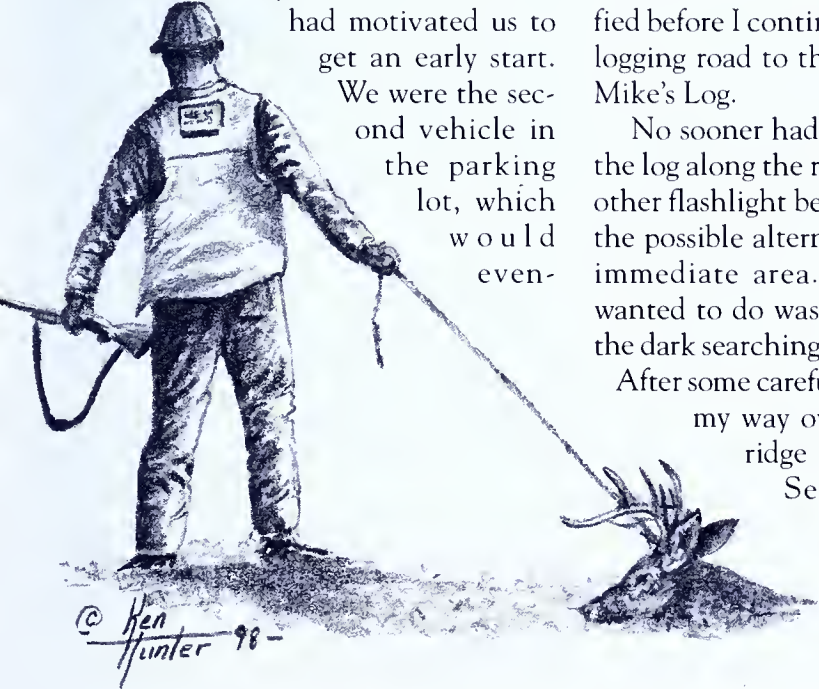
had motivated us to get an early start. We were the second vehicle in the parking lot, which would even-

ually overflow with cars, trucks and vans. With more than a mile and a half hike ahead of us, and two hours until legal shooting time, we headed into the woods toward our stands. Following a grassy trail around the clearcut, we crossed a small stream, and after climbing the spine of a long ridge, reached the broad level top we intended to hunt. Just 75 yards short of Matt's stand, we were surprised to see the beam of a flashlight sweep toward us. Another hunter had gotten to the area ahead of us.

Discouraged, we turned back the way we had come. Moving 150 yards back down the logging road, we looked for another possible stand. We came to a fallen tree with three trunks sharing the same root system. I instructed Matt to cross the trunks and sit on the lower side facing downhill. From previous scouting trips, I knew that directly below this section of trail was a thicket consisting of small saplings and ground cover. Shots from this stand would be tight and would require patience while waiting for the deer to move into an opening. Describing the area to Matt, I made sure he was satisfied before I continued back down the logging road to the nearby ridge and Mike's Log.

No sooner had I begun to look for the log along the ridge when I saw another flashlight beam. I thought of all the possible alternative stands in the immediate area. The last thing I wanted to do was stumble around in the dark searching for a suitable stand.

After some careful thought, I worked my way over the edge of the ridge and down the hill. Seventy-five yards down the steep hillside, the ground leveled off before dropping steeply to the



stream. On the small bench, I picked a tree that offered a comfortable backrest. Looking back up the ridge toward the other hunter, I was satisfied to no longer see his light and knew I was out of his line of sight and zone of fire.

Only a deer hunter can understand the disappointment of changing stands in the predawn darkness on the first morning of buck season.

Much planning goes into choosing a deer stand.

As reluctant as I was to switch from Mike's Log to a random stand along the lower ridge, I tried my best to settle in and get comfortable.

Far off, many hollows away, the first shot of the season rang out.

There's something special about the first shot of the season. Your imagination takes you to

distant woods where a lucky hunter has started the day off with a buck in his sights.

As more light seeped through the trees in the hollow, I became pleasantly surprised with my new stand. I was located 75 yards uphill from the stream, and the stand overlooked a large portion of the opposite side of the hollow.

By 7:20 the opposite hillside was nearly fully lit by sunlight, and I had just begun to enjoy the view when the sound of deer running through the frost-covered leaves snapped me to attention. Scanning the opposite hillside, I picked out the forms of three deer running in my direction, down the hill angling toward the stream. The

deer crossed the shallow water about 80 yards from my stand, and began climbing the hillside, quartering away from me. I picked up the lead deer in the scope, and after a brief glance moved back to the second deer. Something wasn't right. Swinging back onto the first deer, I saw something above the ears — antlers. As the buck moved through some saplings, I slid the scope from its head, down the long neck

to a point just above the shoulders. Summoning every ounce of patience and control I could, I slowly lowered the crosshairs to the middle of the deer's shoulder and then with an extra degree of caution, lowered the aiming point a bit more. The deer had slowed to a walk, and as I followed its progress up the hill, I resisted the temptation to take a quick glance at its

antlers again. I knew that if my eyes moved off the deer's vitals, my gun was sure to follow. Hunters who concentrate on a deer's rack rather than their intended aiming point miss many deer. The buck stepped into the opening and the rifle roared. The two does, startled by the shot, turned and crashed through the saplings, then splashed across the stream once again, disappearing in seconds up the steep hillside. The buck lay at the edge of the saplings.

I had walked halfway to the deer when something caught my eye. Even though the deer lay on its side, its head facing away from me, I could plainly see the rack rising high above the ground. Before the shot, I had clearly identified the deer as a buck, but I hadn't concentrated on the size of its rack. Now, standing on the hillside next



to the deer, I was shocked. Opening the rifle's bolt, I cleared the action and emptied the magazine. Laying the gun down, I lifted the deer's head. Kneeling beside the fallen buck, I ran my hands over a wide, symmetrical 8-point rack. Beginning at the rough bases, I ran my hand along the main beam, feeling each place where the antlers branched into a point, continuing on, my hand swept up to the tip of the rack.

Before beginning the long drag to the parking lot, I had already decided the deer would go to the taxidermist. This meant extra care handling the deer along the trail. The head and neck, down to the brisket needed to be protected from any unnecessary damage along the trail. That extra caution plus the extreme distance meant a long, difficult trip out of the woods. By the time I had reached the truck I was exhausted, but I had to check on Matt.

I had just turned the bend in the trail when I saw someone heading in my direction. It was Matthew, and he was dragging a deer. The expression on his face and the gleam in his eyes were worth all the early morning and late evening scouting trips, the long drives to and from camp, and the worries all fathers have when their children head off on their own for the first time. Gingerly, I stepped around Matt to take a look at the buck he was dragging. For the second time I had trouble believing my eyes. There, attached to Matt's drag roap was a 9-point buck with a 16-inch spread. In addition, the left antler sported a 3-inch drop tine.

All morning long a parade of deer had passed by Matt. The deer were traveling through the scrub oak just behind his stand. I'm sure he was tempted to move to a new spot several times as deer ran through the scrub oak just out of sight. But Matt had spent his first few years' deer hunting glued to a stand from early morning until quitting time, and had learned a valuable lesson about patience.

Two and a half hours into the morning, a single deer moved through the thicket

75 yards below Matt's stand. Moving along slowly, the deer appeared to be feeding. A few steps later, when it lifted its head, the antlers were plainly visible. Matt's first shot sent the deer running up the hillside and around behind his stand. Turning around, Matt was surprised to find the buck just standing in the thicket. Matt fired again, this time the deer hunched and leapt forward, another shot and the deer ran headlong into a tree. When skinning the deer later, I found that all three of Matt's shots had connected.

The two bucks caused quite a commotion back at the parking lot. Many hunters were surprised to learn a father and son had taken the pair of game land trophies. In addition, you can imagine my wife's surprise when we pulled in even earlier than expected, not empty handed as usual, but sporting smiles a yard wide. Matt not only made it to basketball practice, but was early for a change. I suspect it had more to do with telling his buddies about the morning's deer hunting adventure than the basketball practice.

Looking back on past seasons, where we came home empty-handed, I can honestly say we nearly enjoyed those times just as much as we enjoyed coming home successful. Having hunted throughout Pennsylvania for more than 25 years, I can honestly say that Pennsylvania is truly a hunter's paradise.

I have always enjoyed hunting on public land, particularly game lands. I never have to worry about showing up one day to find a house has been built on my favorite spot or "No Hunting" signs nailed to every tree. Game lands are managed for wildlife and have much to offer hunters. My son Matthew and I have a pair of trophies, a great story to tell and some wonderful memories to prove it. □

Season End Gift

By Mike Toth

THE PROBLEM with New Year's Day, if you're a deer hunter, is that you can't make a resolution to fill your tag. You can promise to quit smoking, stop cursing, not go over the speed limit and clean your guns immediately after a hunt. But there's no absolutely foolproof method of getting a deer.

But you can try.

At least that's what I was thinking while at my parents' house a few years back, during their annual New Year's Day party. Friends, relatives, business acquaintances and the guys in our hunting group came to my parents' household every year for this celebration. And, of course, many hunters were displaying photographs of deer they had just taken. And everyone was enjoying the venison from Dad's Y-buck, which he had shot with my spare rifle, a .30-30, on the second day. He had always said that his .308 was jinxed, and now no one was disputing his assessment.

So I balanced my paper plate of shrimp, chicken wings and venison sausage on my lap and looked at all their pictures and honored their deer with admiration and congratulation, as all deer hunters do. But in the back of my mind I was thinking: I have a muzzleloader stamp. I didn't take a buck during the rifle season. I don't have to work tomorrow. And the blackpowder season is open.

But I had some trouble committing myself. There was the 2-hour ride to where I hunt, not to mention the ride home, which seems even

longer when I don't have a deer and know I won't hunt again for another 10 months. Also, I had neglected to test-fire the Hawken this year. Was it still on? And, finally, the biggest impediment, I'd be hunting alone.

Dad came up to me as my wife, Reggie, and I were packing up all the equipment parents of a 1-year-old child seem to need on every trip away from home. "Are you going up to the Poconos tomorrow?" he asked.

"Thinking about it."

"Tell you what," Dad said. "I'll meet you up there mid-morning. Just tell me where you'll be."

I had forgotten that, like me, Dad had opted for a muzzleloader license. And although he couldn't shoot a deer, because he had filled his tag with the forkhorn, he could put on some deer drives.

That was all it took to sway me. "Sounds great," I said. "Thanks. I'll still-hunt Bobcat Trail about three-quarters of the way down, until I'm about 100 yards in from the pipeline. Then I'll sit and wait. Do you want to push down the south ridge? I saw a lot of does in that area during buck season."

"Okay. If we don't find each other in the woods, I'll meet you on the pipeline at 10."

I told Reggie about our last-minute plans during the drive back to our home. "I thought deer season was over," she said, looking at me, while Joey slept in the car seat behind us.

"Almost," I replied.

My vacuum bottle of coffee was half-empty by the time I reached the dirt parking area near our property. I stepped



—DOUG PIFER

out of the truck and winced when the single-digit Pocono air enveloped my body. Patches of snow covered the ground. The bare brown spots, made up of brittle leaves and frozen mud, crunched with my footsteps around the truck in the morning stillness.

I pulled the 50-caliber Hawken from its case and put the pan powder dispenser, loading tubes with powder and ball, patches, lube, spare flint, bullet starter, and all the other accouterments of a blackpowder hunter in various pockets of my hunting coat. Then, considering the cold shivers I already could feel coming on, I took my coat off and slipped a heavy wool sweater over my wool shirt. I shrugged back into the coat and slowly walked up the dirt road to our property border.

Halfway down Buena Vista Trail, the old hardpan two-track that ran north and east, I stopped and carefully loaded the Hawken. After doing plenty of shooting at the range, I knew the flintlock's sights were on and I had plenty of confidence in the rifle.

Five minutes later, once everything was set, I was standing at the beginning of Bobcat Trail. My father and I had named the trail the first time we walked it, the first day of bear season six years earlier. A combination of a decades-old skid road and intervening deer runs, the trail bisected a north-facing ridge, ending up on the pipeline right-of-way that marked the eastern border of our property.

There had been about three inches of snow on the ground and more falling that day, and Dad and I had discovered fresh bobcat tracks on that trail when we first entered the woods. The tracks had continued for the length of the trail, and it

seemed as if that cat was just two minutes ahead of us, the tracks were that fresh. We never saw the bobcat. Never saw a bear, either, but over the years we did learn that whitetails frequented the area, crossing the trail when moving to and from the swamp at the bottom of the ridge.

I began still-hunting, quickly finding my step-and-pause, step-and-pause groove. After all, I had had plenty of practice during the previous buck season. The woods, however, were just as silent as me. The only tracks I saw were days old. But the heavy Hawken felt good in my hands, the light was slanting brightly through the treetops, and I was hunting. Better than a football game on TV any day.

It took nearly two hours to hunt all the way out to the pipeline. I carefully edged out onto the north-and-south-running right of way until I could clearly check for any deer feeding in the open. Nothing. I sat down and gnawed on a cold candy bar, enjoying the view and the solitude. I finished with a gulp of coffee — still hot! — and worked my way back into Bobcat Trail, taking a stand at the base of a large beech where I could watch the thickets through which Dad might kick out some deer.

An hour passed, with the only change being the wind — it had picked up, blowing hard enough to shake old snow from the otherwise barren woods canopy. My watch read 9:59, and with no sight nor sound of my father, I walked back out to the pipeline to meet him, as we had agreed.

I headed south on the right-of-way, climbing up the slope, carefully scanning the woods to my right. I had been walking for less than a minute when a loud, continuous, crashing sound came from the woods above me. I smiled, remembering my father's technique for one-man drives: beat the brush loud enough so the deer think there are

several drivers in the woods.

But my smile evaporated when the sound grew louder, and I saw some light-brown shapes above me, coursing rapidly down the ridge, just 10 yards in from the pipeline. Three deer headed my way.

They came trotting single file, but they were angling to and fro, as if the lead doe couldn't decide whether or not to cross the pipeline. I got the Hawken up and pulled back the hammer just as the first deer crossed at a right angle to me. Skip her, go to the second. That doe was angling away from me. No way. The third deer — also a doe — was moving fast, but she was my only shot. I squeezed off.

Ignition came a moment later, and I knew immediately that I had missed. Even though the cloud of smoke obscured my vision, I knew that the ball had traveled right over her. Sure enough, I looked downslope and saw three white rumps disappearing over a hogback.

I entered the woods anyway, to search for tracks, and that's when Dad showed up.

"Where is it?" Dad asked. "I heard you shoot."

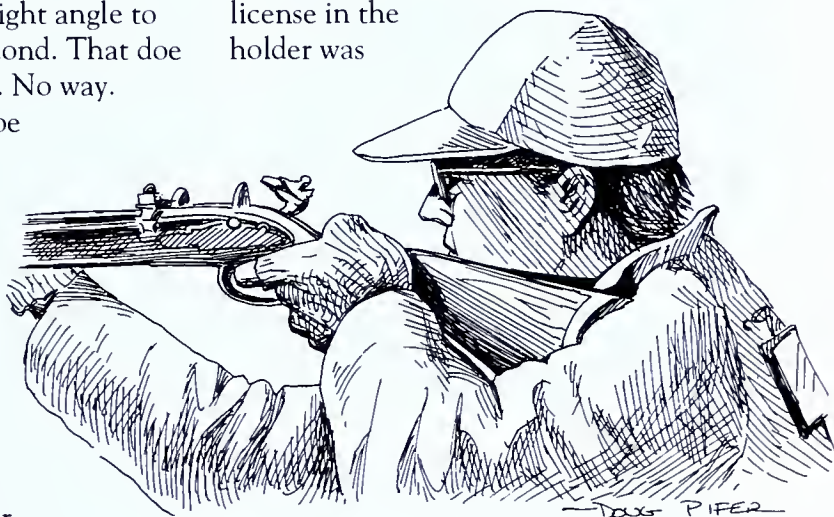
"She's down there, with her buddies," I said, pointing to the swamp. "I missed." I explained what had happened.

Dad and I searched thoroughly, anyway, for any sign of a hit, but as I expected, we didn't find any. The tracks of the three deer led unfalteringly down into the swamp, which we followed until they became lost in the forest litter. We stopped and looked at each other. "Well, what do you want to do?" He asked. "You've got the gun. It's your call."

I looked around me. The wind had strengthened, now shaking branches noisily at its peak gusts. The deer were

not moving earlier, and they definitely wouldn't be out browsing at this time of day in this wind. Plus, the combination of little sleep and a blown opportunity at a deer — probably the last chance I'd get until at least next season — left me feeling a bit dejected.

Then Dad turned around and I saw the license on his back. His license in the holder was



crooked, because of his missing tag. "Let's give it one more shot," I said. "I'll go to the stand that overlooks the swamp on the other side. There might be some deer holed up in the oak flats."

"Okay," my father agreed. "I'll make a big loop around the north side, then cut right through the middle and meet you."

We walked down Bobcat and turned north on the main trail. We traversed the tail end of the swamp and turned east partway up the next ridge. We spotted the stand — just a platform, really, but securely wired to some birches — and Dad turned around to begin his long solo push.

I climbed the ladder, pulled up the flintlock and loaded it for the second time that day. I looked at the



thickets around me, the wind making the small trees and branches creak and moan. Directly above, the sky was piercingly blue, not a frequent occurrence at this 1,700-foot elevation.

Dropping my gaze back down to the woods, I saw the quick flicker of a deer tail in a thicket 40 yards away. My brain didn't register the sight until a few seconds later, when I saw the shine of an eye in the same place. My heart hammered in my ears as I picked up the Hawken. Three deer. Could they be the same ones? They were nervously milling about the little stand of oaks. I sighted down the barrel, found the heart-lung area on the closest one, and pulled the trigger.

Nothing happened. Which was right, because I had forgotten to cock the gun. I gasped at my error

and quickly thumbed back the hammer. The deer were still there, but they had moved deeper into the brush. Only the last one presented a shot.

My finger found the trigger and I fired. Peering through the rapidly dissipating screen of smoke, I saw tails bounding away — and I also thought I saw one of them go down.

I lowered the flintlock, climbed down from the stand and worked my way into the brush. There it was, not a big deer, but a trophy all the same. My shot had been a little high but still clean. I knelt by the deer, feeling the ground's damp cold seep through my woolen trousers as I placed my ungloved hand on the doe's warm, flank. I looked up through the branches at the sky, which looked the same as it did just minutes before. Yet somehow it felt different now, as if its mood had changed after witnessing this metamorphosis, this transition of a wild animal to winter meat for a hunter and his family. I said a prayer of thanks, stood up and, after tagging it, pulled the deer out of the thicket where I could begin field-dressing it.

I had just begun the job when I heard the unmistakable sound of a person walking through brush. I stood and saw my father in the distance. I waved my hat and he altered his course to meet me.

"I didn't see any deer," he said. "Some sign, but . . ." Then he saw my bloody hands. "Hey! Did you get one?"

I pointed at the doe. Evidently, the wind had carried the sound of my shot away from him. "Not five minutes after I climbed up," I said.

Dad shook my hand and examined the deer. "Nice shot. We finally got a deer with the flintlock."

"Finally," I agreed.

"C'mon, I'll help you field-dress it," he said.

"That's a great idea," I replied. □

Game Commission teams visit meat processors annually, gathering important data on the deer herd. How do they obtain much of the information?

It's in the Teeth

By B.J. Small

SHUFFLING THROUGH piles of deer heads and peering into the mouths of dead deer might not be the most pleasant way to spend the early part of Pennsylvania's deer seasons, but it's an important chore.

Every year during the first few days of buck and doe seasons, 30 Game Commission teams visit more than 425 meat processors and quite a few deer camps across the commonwealth, gathering important data on the deer herd and harvest. Last year Tom Lewis of Bedford and Randy Fickes of Huntingdon visited 20 processors in

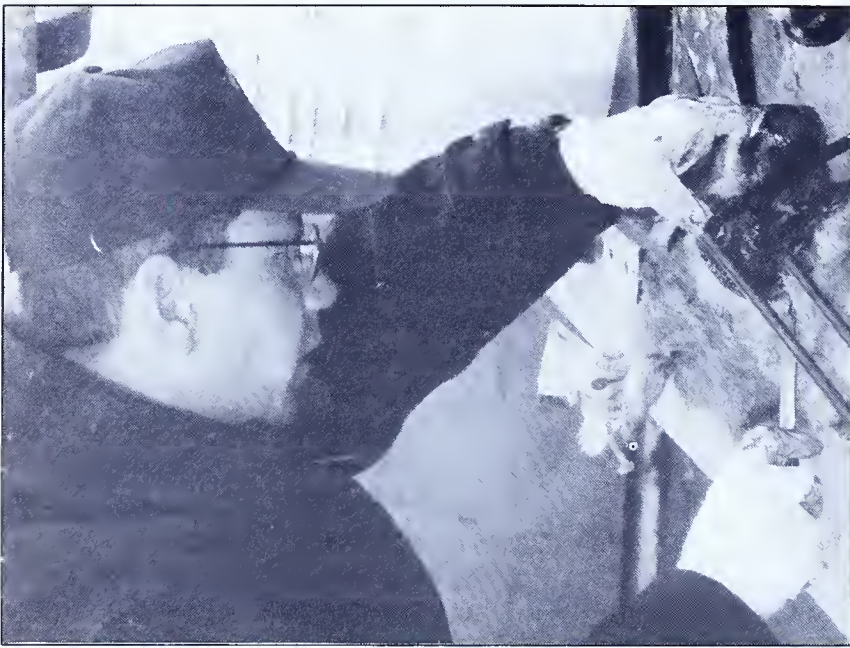
Adams, Franklin and Cumberland counties. They visited seven plants in Adams County on the third day of the buck and doe seasons. At Wayne Stevens' shop off of Route 234 near Biglerville, it was Tom who had his gloved hands on whitetail choppers while Randy jotted down the information. The data gives the Game Commission "an idea of the age distribution and size of the herd and is used to measure reporting rates," Tom said while standing over a pile of deer heads. "The data is plugged into the formula that determines the following year's antlerless license allocation."

Commission teams examined 46,000 deer last year. Of the antlerless deer checked, 56 percent were adult females, 24 percent were male fawns and 20 percent were female fawns.

From the deer tags, Lewis and Fickes record the tag number and the county and township where each deer was taken. It seems most hunters don't know, when

RANDY FIKES, foreground, records data as TOM LEWIS ages deer by examining their teeth during their rounds at southcentral Pennsylvania processors last year.





GAME COMMISSION forester TOM LEWIS determines the age of this doe by looking at its teeth. Of the antlerless deer teams checked last year, 56 percent were adult females, 24 percent were male fawns and 20 percent were female fawns.

filling out their deer tags, which deer management unit they took their deer in. Some Adams County hunters submitted 7A as their DMU, thinking their turkey management area number was close enough. The Game Commission is still evaluating the proposed deer management units, managing deer by forest habitat, land ownership, human population densities and deer population characteristics, instead of by counties. Cross-referencing the tag numbers of successful hunters with those who send in the report cards as required helps the PGC calculate an actual harvest from the reporting rate.

Fickes has been aging deer for 18 of his 20 years with the PGC. Lewis has been at it 12 of his 15. They've been a team for 12. Both men are foresters in the Southcentral Region, managing forested areas on 200,000 acres of state game lands.

The moment of truth is in the inspection of teeth, and the pair says it's the most reliable way to age a white-

tail. "There's six teeth on each side of the back of the lower jaw," Tom Lewis explained as he wedged a buck's mouth open using a jaw spreader — a handheld metal loop. It came from a pile of heads with many different antler shapes and sizes. "The first three teeth are premolars," he said. "They're replaced." With a knife he slit the cheek to expose the back of the jaw. "The last three are molars, which are permanent.

We look at the third premolar." Lewis pointed to the third tooth from the front. "If it's been replaced, it'll have two cusps on it. If it's the first or "baby" tooth, it will have three cusps, or bumps, on it. The replacement begins at about a year and six months, and the adult tooth is fully in place by a year and seven months. So when I look at a third premolar and I see that it's a bicuspid tooth that is sharp, clean and shows no wear, I know the deer is a year-and-a-half," he said.

"Eighteen months" Tom announced, and Randy wrote it down. This deer was like most of the bucks this and other teams see. Statewide, about 80 percent of the bucks are 18 months old.

An occasional visit to a taxidermy studio would seem to add to the cross-section of deer surveyed. But as Lewis and Fickes explained, data from taxidermists would bias the data, by driving the mean age up slightly, considering that taxidermy shops are where trophies (older deer) often end up. For management purposes, when it comes to aging deer, teams log deer into the 6-month, 18-month and 30- or more

month age groups. "In buck season it's a little bit easier to age a deer than in doe season," Tom Lewis said, "because in doe season we're getting many deer that fall into all three categories."

They have seen some of the wily, older antlerless deer that tend to outsmart hunters for years. "We've come across does where the teeth were so flat, there was so much wear on them and so much dentine showing," Lewis said, "that we figured they were about seven and a half years old."

Based on what they saw, Lewis and Fickes thought the buck harvest would be higher than what had been expected. Hunters, it turned out, took 377,489 white-tails in 1998, and the buck harvest was the second highest ever. Antlerless numbers were the lowest since 1987, because antlerless license sales were limited.

Lewis and Fickes do get a chance to hunt deer before running their processor circuit.

They're usually off on the deer season openers. After that, doing the survey gives them a chance to rub elbows — or deer heads — with hunters, and they appreciate the cooperation they get from processors. Law enforcement isn't part of their duty. They don't issue citations for violations they come across.

The worst part of the job is actually out of their control. "The worst problem we have is bad weather," Fickes said. "We cover 600 or 700 miles in three days, and icy roads make it tough."

They didn't have to worry about that last season. Above average temperatures not only got them to work on time, but had hunters taking deer to butchers quickly. In some cases it made for a bigger pile of deer heads for them to sort through. □

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A Mountain Trophy

By George H. Block, III

THE HUNTER had been in his treestand for about an hour when he heard a noise off to his left. Instantly his senses became alert and his hand tightened on the bow as he stared into the slashings and laurel, checking each shadow for movement.

For most of his adult life he had hunted whitetails, but it was only for the past 10 years that he hunted with a bow. There was nothing moving, but then, ghost like, a little 4-point appeared, snaking its way along a trail through the saplings. It didn't seem to be in any hurry, and the bow was brought up and drawn. Every time the buck stopped, though, it never offered a clear shot. The hunter, Dale Robison from New Eagle, Washington County, watched as his muscles began to tremble from the strain, and the buck eventually just walked away. Oh, well, Dale thought, that's archery hunting, frustrating but always thrilling.

It has been some years now since I hunted deer in the northern tier. These days I hunt in Washington County. I got my first Washington County buck in 1957, and back then there was little doubt that farm country bucks were much larger than those taken in the mountains. Back then I would travel to the mountains of McKean or Warren counties to hunt during the first couple days of buck season. Family summer vacations and winter buck hunts at a small gray cabin on a steep mountain road near Crosby

in McKean County still live in my memory. On those occasions when I failed to get a deer up north, I would hunt the rest of the season at home.

While in the mountains I would often see 30 to 50 deer a day, but most were without antlers. At home I would hunt all day, and not only not see a deer, but would consider myself lucky, even with a new snow on the ground, if I crossed a deer track. On the other hand, I felt crowded if I saw the tracks of another hunter. Still, it was the trophy quality of the deer that kept me hunting the southwestern corner of the state back then.

All in all, I loved my days in the mountains. The deer may have been small by home standards, but the mountainous topography more than compensated for taking home a forkhorn buck. I still have memories of a stand in Warren County. Nearly every opening morning found me waiting for daylight on this stand. The cold and surroundings are etched in my mind and, of course, the bucks that crossed my path are still sharp in my memory.

But still, there were all those large racked bucks in my backyard. I would bring home a small antlered buck, then see a large 10-point while driving for someone else. That became too much, so in 1974 I began staying home for buck season. Since that day I've never hunted bucks in the mountains, although I still head north to hunt bear and fish for trout, and it wasn't too many years ago that I predicted that northern counties would start to produce larger bucks.



As I said earlier, hunting in the southwest 30 or 40 years ago, it was unusual to see another hunter during buck season. Conversely, red and, later, orange clad hunters were all over the northern tier when buck season arrived. While I'm well aware of the need for good genes and adequate nourishment for a buck to achieve trophy status, age is the primary factor. And where hunting pressure is high,



few bucks survive the first fall they have antlers. Back when I hunted up north, the food supply for deer wasn't all that plentiful, either, but far and away the majority of bucks taken were just 1½ years old. Back in Washington County, though, I saw literally hundreds of bucks before I saw my first spike, and that occurred just a few years ago. In fact, the first 20 years I hunted at home I never saw even a forkhorn. Back then bucks carried at least six points, and even 8-point racks were being seen on 1½-year-old bucks. But things have changed in the last 20 years.

Whereas the mountains were crowded with hunters, now it's the farm counties that find a hunter behind every tree. While food supply is

still undoubtedly better in the farm country, bucks here have a difficult time reaching maturity. On the other hand, the mountains of McKean, Warren and Potter counties do not experience as much hunting pressure as in the old days. Not only that, but there are fewer deer in many places up north. This can be both good and bad. The hunter who hunts hard all week without seeing a buck thinks that it's bad, but there is a hidden benefit. The fewer the deer, the more food there is for those that remain. It doesn't take a genius to figure out that one cannot have more deer than what the land can sustain. Fewer hunters with fewer deer competing for food makes for better quality deer.

Just two years ago I was on a high mountain ridge in southern Elk County watching for a bear. I had never hunted the area before and went into the woods that morning without a hint of what the terrain was like. Because I never take bear hunting too seriously, my stand selection didn't really

matter, so I had made my way to a bench where I could watch over a reasonable piece of ground. As soon as the sun came up, deer started moving past my stand, reminding me of those long ago days when I hunted in Warren County for deer. After about eight or 10 does passed my stand a big 8-point buck came along. Right behind it was a larger buck, one that was good even for a farm country deer. That buck was in the 120 B&C class.

The hunter seeking a larger than average buck from the mountains of northern Pennsylvania should look at an area where conditions are good for producing trophy racks. Places that have been timbered off offer an increase in browse that carry deer over during bad winters. Thick and overgrown, these spots also offer places for deer to hide when hunting pressure increases.

Another factor would be to seek a place far from the nearest road where hunters seldom venture. Of course, both conditions don't add up to an easy hunt, but it's this difficulty that allows bucks to mature.

Being a Boone & Crockett Club measurer, I see many trophy size bucks, and for some reason, there were some dandy bucks taken in the 1998 season. There was the exceptional 9-point taken in Greene County by Adrian Whipkey of Holbrook (see September '99 *Game News*) that I thought would be the top archery buck taken during the year. Whipkey's long-tined and wide 9-point scores 156-8, which is one fine buck.

Then Dale Robison of New Eagle asked me to measure his buck. I have learned over the years to be a bit skeptical when someone describes a rack, for, like fish, they seem to grow with each story. I told Dale to bring me the rack and I would measure it. When he showed up I was shocked; I knew right away that the rack would score very high. Not only that, but when I was told the story of the hunt and learned where it had come from, I looked at the rack with even more respect. The large 11-point had come from McKean County. That, my friend, is certainly mountain country. Two great bucks, both taken with a bow, one by a young fellow in farm country, the other in the mountains by a 65-year-old hunter. Dale told me his story.

He was in his treestand on a nice November evening near Kane. Earlier in the season he had missed a chance at a small buck in the same area, and he was hoping for a second chance. He had no secret hunting methods except that he did his

homework and had located an area with many rubs and scrapes. He hadn't been waiting long when the small buck described at the beginning of this story came past his stand, never offering a clear shot. He was just going through the usual second-guessing when he heard a noise from the direction that the little buck had approached. Starting in that direction he saw a large buck coming along the same trail.

Dale couldn't believe his eyes. The biggest buck he had ever laid eyes on was heading his way, and if it followed the same trail as the little buck, he wouldn't get a clear shot. Sure enough it picked its way under the stand in the same manner, but this buck stopped in one of the openings. That was Dale's chance, and he released an arrow that dropped the buck within 20 yards. When Dale climbed down from his stand, he was so nervous he couldn't field-dress the big 11-point. He went to camp and brought back his hunting companions to do the job for him. Dale Robison knew he had a good buck. Later, the buck would tip the scales at 171 pounds.

As I taped the antlers I was impressed with the uniformity of the rack. With the exception of one sticker point that measured one inch, the buck was as close to perfect as they come. The final score is 157-4, possibly the best Pennsylvania buck taken in 1998. Now Mr. Robison faces a dilemma: How does one harvest a Pennsylvania buck topping the one he got in McKean County in 1998? □

COVER PAINTING BY DOUG PIFER

DECEMBER is synonymous with deer hunting for many Keystone State nimrods, and bucks like the one depicted on this month's cover would make most hunters happy. The apples on this tree are nearly gone — brought in by the grower or eaten by a myriad of wildlife — and the tree appears stark against the winter landscape. But the whole growing process begins again in spring for harvest next fall. Thus it is with all renewable resources.

ESCARPMENT

THE DAY BEGINS with an odd geometry of shooting stars, perfect straight lines like tracer rounds fired on each side of the moon. I wait in the dark on a steep hillside among huge boulders and tumbled slides of sandstone. Water gurgles in the hollow like voices in the shadows or a conversation in the next room. In the starlight, the boulders are barely discernible, the hulking shapes like a tragic beaching of leviathans on some dusky shore.

It is the first day of deer season and I am nervous and excited. In this rocky rampart I am perched like some ancient guardsman on nightwatch. A sound of delicate footsteps in the leaves. Who goes there, buck or doe? No other hunters file past. The silvery light of a false dawn creeps across the western sky, and soon after (but not soon enough) the faintest blush of pink light on the opposing ridge. Below, in the gut of the hollow, a red fox barks sharply, as they always do at this hour in this netherworld of shadows within shadows and dreams within dreams. I am alert now and watch nearby trees emerge in the light, like old friends, each familiar after years of study from the same stand. It is light enough to shoot, and as always there is a distant shot at the stroke of the first legal minute, and then another. It is time.

During the last several years I have seen only three other hunters come past my stand, and those probably by accident as they followed the wrong side of the creek, ending up in this tortuous obstacle course where great clots of laurel and rhododendron grow between the boulders. But this is where the deer are, or will come, once the shooting starts. My stand is positioned so that I can see at most 75 yards, with various windows and lanes that allow relatively clear shots. I carry a little brush gun (what other kind of gun would an artist carry?), a Marlin lever action with an 18-inch barrel and stoked with a magazine full of 405-grain .45-70s. Remarkably, on the 100-yard range this carbine lobs the fat, slow slugs into a one-inch ragged hole. I don't see as many deer here as I have on other stands, and sometimes I only hear or see parts of them in the thick cover. But getting four deer in five years is

reason enough to return, and I enjoy having the place to myself. The deer

I see seem unalarmed,

not anticipat-

ing a

hunter

to be in

this se-

cure bas-

tion. Some

have even

bedded down

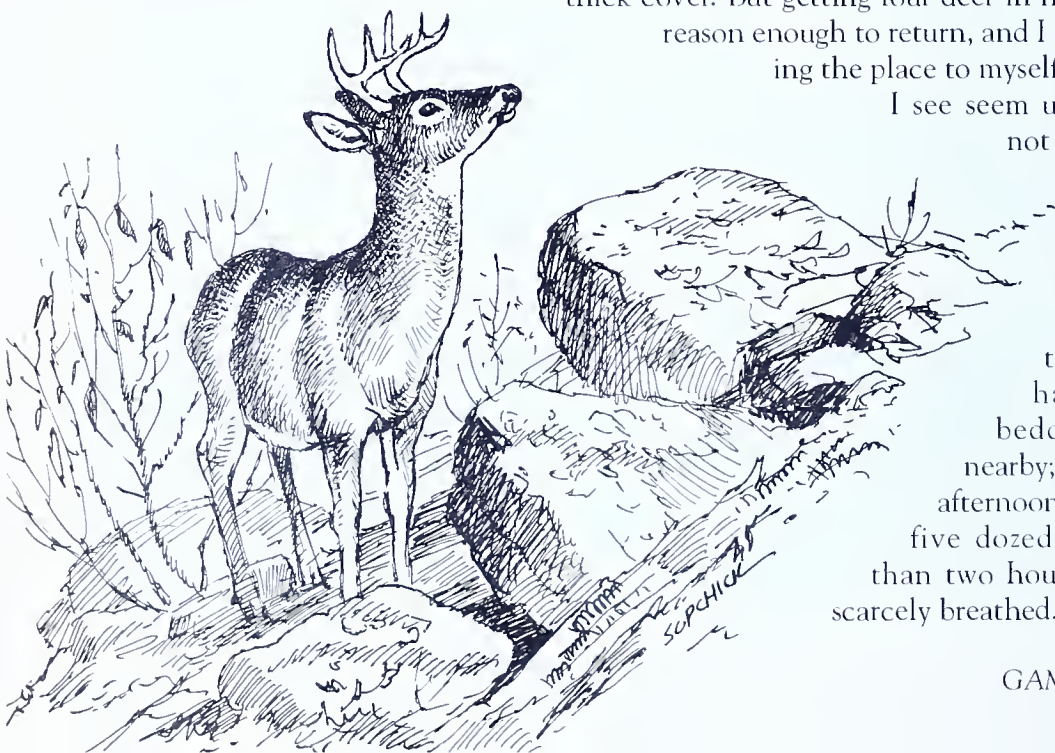
nearby; one sunny

afternoon a group of

five dozed for more

than two hours while I

scarcely breathed.



As always, I am awestruck by the haphazard architecture of the tumbled boulders. Fortress and minaret, obelisk and temple, a lost Mayan city in a temperate jungle. An abstract statuary of leering gargoyles sculpted by the elements, a relief of fleeing animals, vaguely equine or jurassic. Wrinkled gray boulders in tandem, similar in size, a line of pachyderms in a parade. Below, a miniature pyramid with a pickup truck balanced on top. A massive protrusion of the escarpment the bow of a great ark come to rest on Ararat.

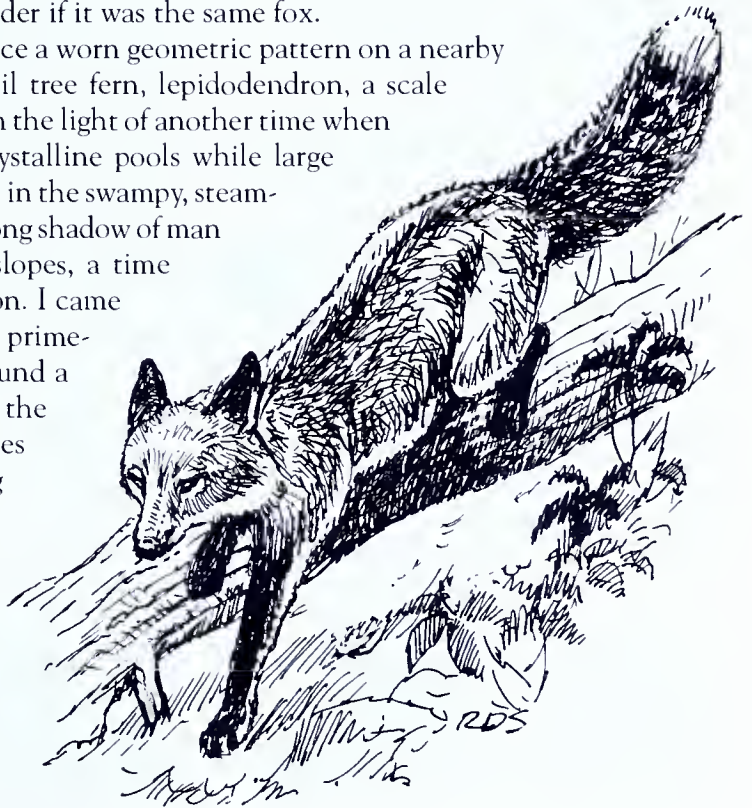
A brilliant flash of orange high up in the rocks above, another hunter I think, as some will often peer down into the laurel from the ridge for a few moments, then move back onto the flat. A hunter it is, a red fox, and through my binoculars I watch the handsome fellow move down through the rocks and into the thickest part of the cover. Soon after, a doe trots out of the laurel with her ears laid back, and stops at a small clearing just below, then continues across, angling down. A few minutes later another deer does the same, but this time it is a 6-point buck that hesitates at the clearing and it angles up towards me, stopping within a latticed windfall. The little gun with the big bullet drops the deer where he stands. I dress out the buck that is still acorn fat even after the rigors of the rut. Last year a red fox that I startled while still hunting here cost me a shot as his mad dash spooked the bedded deer, but this time I believe the fox probably pushed these deer my way as he scurried through the dry leaves. I wonder if it was the same fox.

I pick up my pack and notice a worn geometric pattern on a nearby boulder — it is that of a fossil tree fern, lepidodendron, a scale tree. I am suddenly standing in the light of another time when freshwater sharks glide in crystalline pools while large roaches scuttle up stout fronds in the swampy, steaming forest. A time before the long shadow of man was cast upon these lovely slopes, a time before dreams and imagination. I came here to hunt deer, but in the primeval pattern on the stone I found a portal to the past. Dragging the buck over the weathered stones tumbled from this sinking ridge that once towered like the Himalayas, I realize that through the venue of the hunt my actions are a natural and vital continuum of a wondrous saga begun in primeval Pangaea and perpetuated on this shining day in Pennsylvania.

PENN'S WOODS

SKETCHBOOK

BOB SOPCHICK



THE COMPLETE DEER HUNTER'S CHECKLIST✓

This checklist is designed for the regular firearms season. It can be adapted to include archery and muzzleloading. Place a / in the box to the left of the item when it is secured, then complete the X when the item is packed. The three boxes will extend the use of this list over three seasons. Make a copy of this list and keep it with your gear. Good luck!



Preseason Checkpoints

- ☐ ☐ ☐ Purchase hunting licenses
- ☐ ☐ ☐ Study hunting regulations
- ☐ ☐ ☐ Know tagging system
- ☐ ☐ ☐ Secure landowner's permission
- ☐ ☐ ☐ Hunter safety courses
- ☐ ☐ ☐ Preseason scouting
- ☐ ☐ ☐ Physical fitness program
- ☐ ☐ ☐ Sighting-in and practice
- ☐ ☐ ☐ Equipment cleaning and repair
- ☐ ☐ ☐ Schedule vacation time
- ☐ ☐ ☐ Camp repair
- ☐ ☐ ☐ Vehicle maintenance

Preseason notes:

Guns, Ammo and Related Items

- ☐ ☐ ☐ Gunsmithing
- ☐ ☐ ☐ Handloading
- ☐ ☐ ☐ Rifle (sighted-in, cleaned)
- ☐ ☐ ☐ Handgun (sighted-in, cleaned)
- ☐ ☐ ☐ Shotgun (sighted-in, cleaned)
- ☐ ☐ ☐ Sling or carrying strap
- ☐ ☐ ☐ Spare clip
- ☐ ☐ ☐ Gun case
- ☐ ☐ ☐ Ammunition (correct caliber or gauge, same load firearm was sighted-in with)
- ☐ ☐ ☐ Cartridge carrier
- ☐ ☐ ☐ Gun cleaning kit for field or camp

Gun notes:



Clothing

- ☐ ☐ ☐ Check weather report and make appropriate selections
- ☐ ☐ ☐ Hat (required amount of fluorescent orange)
- ☐ ☐ ☐ Coat
- ☐ ☐ ☐ Jacket
- ☐ ☐ ☐ Vest
- ☐ ☐ ☐ Coveralls
- ☐ ☐ ☐ Pants
- ☐ ☐ ☐ Shirts
- ☐ ☐ ☐ Sweater
- ☐ ☐ ☐ Boots (with liners and insoles, check laces)
- ☐ ☐ ☐ Hipboots
- ☐ ☐ ☐ Regular and liner socks
- ☐ ☐ ☐ Gloves or mittens
- ☐ ☐ ☐ Thermal underwear
- ☐ ☐ ☐ Belt, suspenders
- ☐ ☐ ☐ Handkerchief, bandana
- ☐ ☐ ☐ Rain gear
- ☐ ☐ ☐ Scarf
- ☐ ☐ ☐ Gaiters
- ☐ ☐ ☐ Face mask

Clothing notes:



Optics

- ☐ ☐ ☐ Scope (check rings and mounts for tightness)
- ☐ ☐ ☐ Scope cover/lens caps
- ☐ ☐ ☐ Binoculars
- ☐ ☐ ☐ Shooting glasses
- ☐ ☐ ☐ Sunglasses
- ☐ ☐ ☐ Lens cleaning tissues

- ☐ ☐ ☐ Anti-fog spray
- ☐ ☐ ☐ Regular eyeglasses
- ☐ ☐ ☐ Spotting scope
- ☐ ☐ ☐ Rangefinder
- ☐ ☐ ☐ Camera, film and accessories
- ☐ ☐ ☐ Camcorder

Optics Notes:

Field Gear and Accessories

- ☐ ☐ ☐ Knife, sharpened
- ☐ ☐ ☐ Bone saw
- ☐ ☐ ☐ Pruning shears
- ☐ ☐ ☐ Flashlight (new batteries, bulb)
- ☐ ☐ ☐ Drag rope
- ☐ ☐ ☐ License, license holder
- ☐ ☐ ☐ Pencil & string or wire for tagging
- ☐ ☐ ☐ Deer sled or cart
- ☐ ☐ ☐ Field-dressing kit (wet towelettes, rubber gloves, plastic bag)
- ☐ ☐ ☐ Compass
- ☐ ☐ ☐ Topo maps
- ☐ ☐ ☐ GPS
- ☐ ☐ ☐ Masking scents
- ☐ ☐ ☐ Deer calls
- ☐ ☐ ☐ Water bottle, canteen or bota, filled with water
- ☐ ☐ ☐ Thermos
- ☐ ☐ ☐ Survival kit
- ☐ ☐ ☐ First-Aid kit
- ☐ ☐ ☐ Whistle
- ☐ ☐ ☐ Hunting seat
- ☐ ☐ ☐ Hunter's seat cushion
- ☐ ☐ ☐ Tree stand (with safety belt and accessories)
- ☐ ☐ ☐ Plastic urinal
- ☐ ☐ ☐ Pocket handwarmers
- ☐ ☐ ☐ Toilet tissue
- ☐ ☐ ☐ Daypack/fannypack, dufflebag
- ☐ ☐ ☐ Lunch/field snacks
- ☐ ☐ ☐ Watch

Field Gear notes:



Personal Items/Other Checkpoints

- ☐ ☐ ☐ Prescription medicine
- ☐ ☐ ☐ Wallet with ID, money, credit cards
- ☐ ☐ ☐ Keys to camp, guncase, extra vehicle keys
- ☐ ☐ ☐ Vehicle safety and fluids check
- ☐ ☐ ☐ Fuel up
- ☐ ☐ ☐ Check for varying weather conditions
- ☐ ☐ ☐ Set alarm clock
- ☐ ☐ ☐ Leave detailed hunting itinerary for family
- ☐ ☐ ☐ Cellular phone

Personal Item notes:

After The Hunt and Post Season

- ☐ ☐ ☐ Mail in deer harvest report card
- ☐ ☐ ☐ Process deer
- ☐ ☐ ☐ Taxidermy arrangements
- ☐ ☐ ☐ Clean and store all gear
- ☐ ☐ ☐ Return borrowed gear
- ☐ ☐ ☐ Get film processed
- ☐ ☐ ☐ Send landowner thank you note
- ☐ ☐ ☐ Share the harvest

Post-season notes:



Miscellaneous notes:

Hunting Partners and Numbers



Bob
Sopchick

check PGC website for latest
hunting info
www.pgc.state.pa.us

'Tis the



THIS 8-POINT buck was taken in Snyder County by VALERIE ARNOLD of Robesonia.



WENDY WARNER, Montrose, got this Susquehanna County spike while on a special hunt with her father. The hunt was special, because after taking several bucks during back-to-back years, a car accident kept her out of the woods for a few seasons, until last year's opening day. Way to go, Wendy!



JOSEPH HABECKER JR., Piketown, above, got his first deer — this 5-point — last year on opening day in Pike County. DAN FRIZZI, Pittsburgh, middle right, got this 12-point trophy in Washington County. GEORGE CYPHER, left, and DARIO TRAGGIAL, right, Cabot, who are reluctant to leave their deer stands for anything, say, "Hunters don't grow old, they just go to pot."



Season



WHO SAYS they're all gone after the first day? From L to R, JOHN GASKINS, Coatesville, spike; CHUCK WARNER, Rushville, spike; and TRAVIS CAINS, Meshoppen, 6-point, connected on the last day of the '98 season. Deer drives sure pay off.



JASON MORROW, Stoneboro, got this 7-point buck last year in Mercer County.



ANDY GASKINS, above, traveled from Rhode Island to bag this big 9-point in Susquehanna County. Nice going, Andy! It was worth the wait for JOE MALUCCI, Penn Hills, middle left, who bagged his first buck ever — this handsome 9-point — in Forest County last year. Husband and wife team DICK and LOUISE HENRY, Mechanicsburg, left, got their bucks an hour apart on last season's opener in Mifflin County. Louise's buck was a 10-point with two drop tines. Dick got an 8-point.



The making of

The Elk Video

By Rawland D. Cogan

PGC Biologist Forest Wildlife Section



John DeBerdi

FOR 2½ YEARS Hal Korber, PGC award winning videographer, and I spent many hours filming elk through the seasons. We wanted to document the dynamic rutting activity and the dominance fights between bulls, newborn calf behavior, cow and calf interaction, as well as the elk trap and transfer, aerial population survey, and habitat enhancement projects. We also wanted to cover the controversial issues surrounding this animal. Renowned nature writer Scott Weidensaul wrote the script. (For a review of Weidensaul's latest book, *Living on the Wind: Across the Hemisphere with Migratory Birds*, see Marcia Bonta's column, beginning on page 51.)

We filmed on horseback occasionally, especially during the fall rutting season. On horseback we could get close to elk and, more importantly, into less accessible areas. Even in western states where elk are hunted, elk consider a man on horseback less of a threat than a man on foot.

While filming during the rut, we had bulls bugle at the sounds of our horses, something I've had happen several times while hunting elk in Idaho and Colorado. The most difficult aspect of filming from horseback was packing the video camera and tripod. Weighing close to 25 pounds, Hal's camera was too large to fit in a saddlebag, too awkward to tie on the saddle and too expensive to damage while on a horse. We often joked about having to try and explain to our supervisors how the horse bucked and trampled the camera.

One day while filming on horseback during the rut we heard a bull bugle about a half-mile away. We reined our horses toward the bull and headed off through the timber. The bull continued to bugle as we moved in. When we were within 150 yards, Hal rode up next to me and said, "Are we close enough?" I nodded and he then asked, "Where should we park?"

Covering my laughter as best as I could, I said, "Hal, you don't park a horse. You park your car. A horse you tie up." Hal is a great videographer but his horsemanship needs a little work.

Among the several messages we wanted to include in the video was that our elk management program is a fine example of partners working together for a common goal. Throughout the video, local residents are featured, along with representatives of the Rocky Mountain Elk Foundation, Department of Conservation and Natural Resources' (DCNR) Bureau of Forestry and Game Commission employees, all people who live and work among elk.

Another message was that man has made a lot of mistakes in regard to our landscape. During the early 1900s strip-mining and deep mining coal was conducted in earnest, and as a result, waterways were destroyed due to acid mine discharges and soils were left barren. In the video, we show how man has learned from these mistakes, that many old abandoned strip-mine sites have been reclaimed and today provide high quality food and cover for elk and other wildlife.

Another message was that public land is important to wildlife, especially when managing a large ungulate like elk. Pennsylvania contains 1.4 million acres of state game lands managed by the PGC and 2.1 million acres of state forest lands managed by DCNR. Public land provides security and many management options where there are few conflicts with people. Without the large tracts of public land, we in all likelihood would have no elk in Pennsylvania today.

Since we began actively studying elk in the early 1980s we have learned a great deal about this animal. It was frustrating for me to condense 17 years of research and observations into an 85-minute video. For example, we could not show how we pieced together the evidence to describe how a black bear killed a newborn calf we had marked during the elk calf survival study (October 1998 *Game News*). Another time we spent 11 hours lying in the brush, fighting hungry insects, waiting for a cow to return to its calf to nurse it. We never did get the shot we wanted.



Rawley Cogan

HAL KORBER slips in real close to capture the behavior of a newborn calf, just one of the many facets of elk natural history documented in the Game Commission's new elk video.

We spent six years studying calf survival, but only a few minutes to cover the subject in the video. Many things I have seen did not fit into the script. For example, the time I learned of a cow elk trapped in a strip-mined sediment pond. Turkey vultures were already circling the struggling animal by the time I arrived. We were able to attach a rope to the cow and, using a dozer, pull her from the muck.

The video shot that still haunts Hal and me was taken on a foggy morning during the rut of 1997. As we crept in close to a bugling bull, I made a few cow calls. The bull bugled and moved closer. We couldn't see him, because of the dense fog, but we knew he was very close. We finally sat down to wait his approach.

The bull bugled again as he passed within a few feet of us. He had broken off tree branches while rubbing his antlers and some were still hanging in his antlers as he walked by. To see a bull elk that close and bugling was exciting, but it was also a little frightening. After the bull passed we looked at the video only to see a blank screen, nothing was on the tape.

We didn't get the shot because of equipment failure, but we certainly



Hal Korber

MUCH of the fascinating information in the elk video has been learned through long-term radio telemetry studies. Here Cogan attaches a collar to an adult cow.

have the image of that impressive bull recorded in our memories.

Another thing we wanted to show was elk and deer feeding together, which they commonly do. One evening in August, just prior to the rutting season, Hal and I drove to the Quehanna Wild Area in Cameron County, where a new seeding of clover was attracting about 50 deer and 25 elk. Our plan was to walk through the mountain laurel and approach the field from the downwind side. As we slipped through the laurel we could see the deer and elk feeding together in the field. We continued through the laurel for a short distance when suddenly a spike bull elk jumped up and ran out into the field. We watched as it ran directly into the group of deer and elk, sending all the animals scurrying for cover. Again, we were close to getting the footage, but as it turned out, we didn't even get the camera set up.

Scott Weidensaul wrote the script for the video. Prior to Scott writing the script I wrote an outline and provided information such as habitat preference, habits, breeding behavior, reproductive and survival estimates and management programs. Scott then wrote the script. He was a mas-

ter at changing my scientific type writing and adapting it to video narration. Many times Hal and I would say we wanted the narration to feel a certain way, and within a few minutes Scott would change the words to fit perfectly. Scott certainly added a quality to the video that Hal and I could not provide.

Narrating the script was the most difficult aspect of the video for me. Imagine yourself staring into a large black hole, the camera lens, and giving your lines in a "natural" manner, just like you would carry on a conversation. The lens did not smile or nod; it was the same all the time. Sometimes I even saw my reflection staring back at me. Many takes were often needed to satisfy Hal, because I had slurred or mispronounced words or I needed to "turn up the enthusiasm a notch or two." Many times our roles overlapped, and that added quality and creativity to the video production.

Two years in the making, the elk video was released in June. Productions such as this are time consuming, but in the long-term prove to be valuable educational tools. This video is the most complete documentation of elk in our state. We hope it will give people a better understanding and appreciation of wildlife conservation in Pennsylvania. I am proud of the information contained in the video, Hal's creativity and Scott's ability to put feelings into words. But most of all I am grateful to have been part of "Pennsylvania Elk: Reclaiming the Alleghenies." □

"Pennsylvania Elk: Reclaiming the Alleghenies" may be ordered from the Pennsylvania Game Commission, Department MS, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797. Make checks payable to the Pennsylvania Game Commission. For faster service, call 1-888-888-3459; Visa and MasterCard accepted. Price is \$29.24; PA residents add 6% state sales tax.



FIELD NOTES



Knock, Knock

MONTGOMERY — Wes Schmit heard a knock at his door, but when he looked out the window, he didn't see anyone. After hearing more knocking, he opened the door and found a turkey standing there. The turkey had seen its reflection in the glass and was pecking at the door.

— WCO BILL VROMAN, FREDERICK

Thanks

The disc blades for our heavy machinery used to create wildlife food plots were so old and worn that they would no longer turn up the soil. Thanks to a nearly \$4,000 donation from the Lehigh Valley Chapter of the Safari Club International, our tractor is now supporting 10 new 32-inch blades, new bolts and bushings, and a new paint job. The revamped equipment will be put to good use on the Moshannon State Forest and surrounding areas.

— LMO COLLEEN M. SHANNON, GRAMPAN

Moving Through

TRAINING SCHOOL — One day in September at Hawk Mountain we counted more than 220 broadwing hawks plus some ospreys and sharp-shinned hawks.

— TRAINEE WES STAUFFER, HARRISBURG

Seeing is Believing

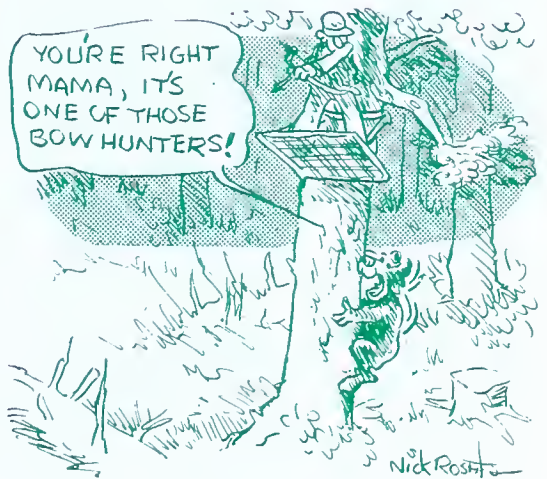
SNYDER — Lee Heintzelman was on his way to work when he saw a turkey flying directly at his truck. He quickly rolled up his window, so the bird wouldn't fly into the cab, then he heard a loud bang. Lee got out of the truck, expecting to find a dead turkey but found nothing. After he got to work he was telling his co-workers about the incident, but no one believed him until a turkey flushed from the bed of the truck.

— WCO STEVEN BERNARDI, PENNS CREEK

"Well, It's Kind of Like a . . ."

Our fisher mount at the Bloomsburg Fair created quite a stir among visitors, of which many couldn't identify it. Several people said they had a dog just like it and some a cat just like it. One person insisted it was a bobcat while another said it was a red fox. One person told me about sighting a black panther in the Adirondacks, but that he had never even heard of a fisher.

— LMO RICHARD J. LUPINSKY SR.,
EAST SMITHFIELD



"Unbearable"

I was in my treestand during the first week of archery season when an 8-point buck angled down the trail and stopped about 11 yards away. I turned and got ready to draw my bow when a terrific racket off to my left caused the buck to turn and bolt. Thinking it was a hunter fumbling around in the laurel, I was surprised when a big bear ambled out, worked its way over to my tree and stared at me through the grates of my platform before ambling off back into the thicket. Amazingly, I was in the same tree about a week later, and a smaller bear actually tried to climb up into my stand.

— HTE DIVISION CHIEF KEITH SNYDER,
HARRISBURG



Pre-Spiced

POTTER — Ed Lundy told me the turkeys around his home have an affinity for hot peppers. It seems that a flock got into his garden and ate all of his jalapeno, cayenne and habanero peppers and the plants, too. The lucky hunter who harvests one of these birds won't have to season it much.

— WCO WILLIAM C. RAGOSTA, COUDERSPORT

All Quizzed Out

TRAINING SCHOOL — Halfway through our training, I realized why colleges give students several weeks off during semesters. So far I've taken more tests and exams here than I did in four years of college, and there are 20 weeks to go.

— TRAINEE ROBERT A. EINODSHOFER, HARRISBURG

Keep This in Mind

JEFFERSON — Despite minimal rainfall over the summer, hard and soft mast came through extremely well here. Some apple trees were so loaded down that branches were breaking off trees. Wildlife will be in great shape going into the winter months. Abundant food supplies, however, spread out wildlife populations. Hunters hoping to fill their big game tags this year will have to venture farther back into wooded areas.

— WCO ROGER A. HARTLESS, BROOKVILLE

Started a Ruckus

MERCER — Ken Gundaker of Transfer was sitting around a campfire in his backyard when he heard an owl call on the hill. He playfully responded to the owl's call, and it answered then got closer and closer. Suddenly there was a commotion in the woods and turkeys flew off the roost. One of the startled birds flew into Ken's house and was killed. Ken was surprised by the incident, as he had no idea turkeys were roosting so close to his house until the owl spooked the birds. His young daughter didn't want anything more to do with sitting outside that night.

— WCO DONALD G. CHAYBIN, GREENVILLE

Crime Doesn't Pay

BEDFORD — While investigating a "reported" hunting incident, neighboring WCO Steve Leiendecker discovered that the 16-year-old had actually shot himself in the foot while in a pickup, at night, while attempting to poach a deer. The young man told Steve that he was going to sue the firearm manufacturer, because his rifle discharges every time he simply looks through the scope.

— WCO DAN YAHNER, EVERETT

True

CRAWFORD — It amazes me how anti-hunters believe that their attempts to disrupt or stop hunting and trapping will benefit wildlife. Yes, they spend millions of dollars on lobbying and advertising, but it's the sportsmen who spend millions through organizations such as Ducks Unlimited, National Wild Turkey Federation, Ruffed Grouse Society, Pheasants Forever and Safari Club International that are truly preserving wildlife's future through habitat purchases, restoration and management. The next time you are confronted by an anti-hunter, ask what he or she really does to benefit wildlife.

— WCO MARK A. ALLEGRO, MEADVILLE

Fiercest of Them All

TRAINING SCHOOL — While you're in the field this fall be sure to look for predator/prey interactions. A hawk catching a snake, a fox pouncing on a mouse, or a field training officer hovering over a trainee, looking for a Field Note.

— TRAINEE WILLIAM F. DINGMAN III,
HARRISBURG

Growing Pains

ELK — People are always surprised at how heavy elk antlers are, but they're really amazed when they're told that antlers are bone that grows about an inch a day until hardened. If our bones grew that fast you could break a leg getting out of bed then play football after lunch, but, you'd need a longer bed by nightfall.

— WCO DICK BODENHORN, RIDGWAY

Second Skin

DELAWARE — Jack Graham from Ridley Creek State Park told me that one of his park rangers received a call to remove a snake from a house near the park. The caller had said that the snake was taped to her fireplace opening. After arriving, the ranger discovered that the woman had taped a bed sheet over the fireplace opening, and that the snake had gotten stuck on the duct tape trying to get out. The ranger was unable to remove the tape without causing harm to the snake, so he trimmed the tape as best he could and released it several miles away. Hopefully, the next time the snake sheds its skin, it will shed the tape, too.

— WCO ROSE LUCIANE, EDMONT

Resilient

HUNTINGDON — Prior to last buck season I noticed a small spike that was missing part of a front leg. I didn't think he would survive the hunting season or the winter, but this past fall I spotted the buck again, and sporting a 6-point rack.

— WCO JOHN B. ROLLER, HUNTINGDON

Fast Get-Away

WASHINGTON — While patrolling on SGL 117 at about 2 a.m. WCO Rod Bimber and I were momentarily "lit up" from above by the landing lights of an aircraft. Apparently, the airliner had just taken off from nearby Pittsburgh International Airport. All pilots take note: It's illegal to spotlight after 11 p.m., even from an aircraft. Unfortunately, this "violator" fled at a high rate of speed before we could get a license number. They'll have to start installing wings on our Broncos.

— WCO FRANK E. LEICHTENBERGER,
CLAYSVILLE



It Figured

NORTHUMBERLAND — On the first day of archery season Deputy Mark Sutsko and I went to check on a treestand where bait had been placed nearby. Mark said the best way to approach the stand was to travel along the edge of the field, so we wouldn't be seen. We hadn't gone 20 yards into the tall grass until we were totally soaked from the morning dew. To make matters worse, we ran into a maze of multiflora rose bushes that shredded our clothes and had us bleeding. Finally, when we reached the site, the stand was empty. When I got closer I noticed a parking lot 30 yards from the treestand that we could have pulled right into and had a direct view of the stand.

— WCO DIRK B. REMENSYDER, SUNBURY



Dogfight

BRADFORD — Deputy Charlie Fox and I were driving along a lake when we noticed an eagle chasing an osprey carrying a fish. Although the osprey was doing some nifty maneuvers to avoid its pursuer, the eagle finally closed in and made the osprey drop its catch. The eagle promptly broke off the chase and dove after the fish, catching it in midair.

— WCO WILLIAM A. BOWER, TROY

Lucky Number

BERKS — While sitting down to type this month's Field Note it occurred to me that I've been reading *Game News* for 18 years. And now I've been submitting Field Notes for the past 18 months.

— WCO DAVID BROCKMEIER, RICHLANDTOWN

Higher Power

CLEARFIELD — WCOs and deputies are always being approached by individuals wanting roadkilled deer. One individual recently got top priority on "the list," however, when, while passing the collection basket at church, he discretely asked Deputy Frank Downes if he had a fresh roadkilled deer. I told Frank that maybe we could stay in good with the Almighty if he placed some fresh tenderloins in the basket the following Sunday.

— WCO CHRISTOPHER P. IVCIC, PHILIPSBURG

That Will Teach Him

WYOMING — Doug Gay was hiking with his English setter when it suddenly veered and came face to face with a wobbly-legged fawn. The deer, which appeared to be only a few days old, charged forward and gave the dog a headbutt. The startled setter beat a hasty retreat, and the fawn calmly bedded back down in the grass.

— WCO WILLIAM WASSERMAN, TUNKHANNOCK

Unauthorized Landing

DAUPHIN — While patrolling on the last day of the early goose season, Deputy Bob Schmit and I noticed a large flock of geese on the helicopter landing pad at Ft. Indiantown Gap. Bob said he hoped the geese had cleared the use of the pad with the control tower.

— WCO GUY HANSEN, MIDDLETOWN



Barnum & Bailey

WAYNE — The current agricultural trend of wrapping hay bales in white plastic has its downside. It seems something about the plastic wrap invokes the curiosity of wildlife, and I've received calls about many types of critters tearing through the wrap. Most destructive was a bear on Browndale Mountain. This curious bruin rolled bales from their resting place and rode atop them like a circus bear on a drum, and then it tore other bales to shreds.

— WCO DONALD R. SCHAUER, HONESDALE

Nature's Way

GREENE — Deputy Bill Rush and I were patrolling when we noticed a flock of wild turkeys crossing a road. We guarded the birds from oncoming traffic, but couldn't protect the last poult from a red-tailed hawk that swooped down and killed it. It's easy to have mixed emotions when you see a predator doing what comes naturally, but we have to remember that nature has balances, and predators make wild turkeys the wary trophies that they are.

— WCO RODNEY L. BURNS, WAYNESBURG

Didn't Realize it was that Bad

MONROE — I received a call about a nuisance raccoon that reportedly caused considerable damage inside a home. I asked dispatcher Rich Walton if he had given the homeowner any advice on how to get rid of the animal. After a moment's hesitation Rich informed me that contact with the caller was no longer possible, because the raccoon had severed the phone line.

— WCO RANDY L. SHOUP, LONG POND

Can't Wait to See 'Em

CHESTER — In a Field Note in the October issue, WCO Rose Luciane gave her "big brother," or mentor officer, a nice compliment, and I'm grateful. While it may be true that I uttered the words "Field Note" on a few occasions after something she had done, I would like to point out that I have not submitted any of them for publication — yet!

— WCO KEITH MULLIN, OXFORD

Needs an Orthodontist

TIOGA — I received a call about a bear with porcupine quills in its mouth. After tranquilizing the bear, however, I discovered that the lower canine tooth had been knocked out of position and lay horizontal, sticking out of the side of the mouth, giving the bear the appearance of a saber-toothed tiger.

— WCO JOHN J. SNYDER, WELLSBORO



Get Out the Snowshoes

This year ranks among the best I've ever seen for hard and soft mast. Apples, grapes, acorns and berries are abundant. There's an old saying, though, about it being a bad winter when such conditions exist.

— LMO JAMES E. DENIKER, SANDY LAKE

Misconception

TRAINING SCHOOL — A Field Note in the October issue told of how I ran into a dumpster while leading the group on our morning run. It's true that I did have a run-in with the dumpster, but there seemed to be a little nudge from behind. Right, Trainee Rosa?

— TRAINEE ERIC R. HORSH, HARRISBURG

Can Run but Can't Hide

PERRY — When Wildlife Code infractions could be paid immediately by a field acknowledgement of guilt, violators could avoid having paperwork regarding the citation sent in the mail, so spouses wouldn't necessarily know about the violation. Under the old system, all the violator had to do was come up with an excuse as to where the money went. Now, because field acknowledgement of guilt is no longer an option, all violations must be handled through the court system, with a citation sent through the mail. You'd be surprised at the letters WCOs get from spouses wanting to know the true story.

— WCO JIM BROWN, LOYSVILLE

Commissioners take action to improve deer management

FOLLOWING a tribute to Lantz Hoffman, the recently retired director of the agency's Bureau of Information and Education who died September 30 (see related story on page 39), the October commission meeting began with the commission taking further steps toward better deer management. At its 2-day meeting in St. Marys, Elk County, the commission gave preliminary approval to a proposed rule that would aid farmers enrolled in the commission's cooperative public access and deer depredation programs and, at the same time, expand hunting opportunities for Resident Junior License holders.

The proposed rule would provide farmers enrolled in the deer control permit program one subpermit for every five acres under cultivation and would allow those subpermits to be issued to Resident Junior License holders.

"For years farmers have asked the commission to do more to help them better manage the deer populations on their properties," said commission President Vernon K. Shaffer. "Today's action is a step toward recognizing those concerns. Hunters can and should be provided expanded opportunities to get into these problem areas, and I encourage other farmers to join the commission's cooperative land programs."

Commission Executive Director Vern Ross noted that state Rep. Ron

Marsico (R-Dauphin) had discussed the idea of allowing Resident Junior License holders to participate in the deer control permit program.

"After we learned that Rep. Marsico had drafted legislation along these lines, we spoke with him about accomplishing this worthwhile goal through a change in the commission's regulation," Ross said. "Today, I am pleased that we are moving toward that goal and I thank Rep. Marsico for this idea."

"Additionally, we need to encourage our young people to carry on Pennsylvania's hunting heritage. Allowing them to participate in the deer depredation program will open more opportunities to our young hunters."

The proposed rule, which was recommended by the Deer Management Working Group, must be approved at a subsequent commission meeting.

Also, on the first day of the meeting, Bureau of Wildlife Management Director Calvin DuBrock announced that the agency would be undertaking a "White-tailed Deer Fawn Mortality Study." The study will look at the impact of predation by coyotes, bears and other wildlife, and other impacts on the fawn population, such as accidents involving vehicles. As part of the study, DuBrock said fawns will be captured and fitted with expandable radio collars to monitor their survival.

"Obtaining data on hunting and other deer mortality rates is essential

in determining the fate of our white-tailed deer population,” said Dr. Alt, leader of the new Deer Management Section within the Bureau of Wildlife Management. “We are looking to conduct this study in two areas. One will be in the Northcentral Region, where many hunters believe coyotes are an important predator in this traditional

deer range. The second will be in either the Northeast or Southcentral region and target public lands surrounded by privately owned land.”

Commissioners also approved a recommendation to cooperate with a confidential study to be conducted by Cornell University of deer hunter satisfaction.

Animal possession permits tightened

COMMISSIONERS approved a new rule that requires applicants for permits to possess captive wildlife to first prove that possessing the wildlife does not violate any municipal zoning ordinance or other local regulations. This rule had been reviewed and received preliminary approval during the commission’s June meeting.

“This new regulation will go a long way toward protecting the public safety and improving cooperation between the commission and municipal officials,” said Bureau of Law Enforcement Assistant Director Dave Overcash, who oversees the agency’s wildlife possession permit program. “Currently, state law allows individuals to own certain types of wildlife as long as they conform to certain regulations of the Game Commission.”

Overcash said currently, in Pennsylvania, there are more than 1,580

permitted propagators who breed and sell wildlife, such as deer, foxes, grouse and skunks. He also noted that there are 86 individuals with permits to possess exotic wildlife, such as tigers, mountain lions and wolf hybrids; and 22 individuals with exotic dealer permits, which allows them to breed and sell exotic animals. Additionally, there are 115 individuals with menagerie permits, which allows them to exhibit, breed and sell animals ranging from tigers and wolf hybrids to deer and skunks.

“By requiring permit applicants to prove that their proposed activity will not violate local rules and regulations, we also will be improving our relations with local government officials,” said Overcash. He also noted that the Pennsylvania State Association of Township Supervisors recently endorsed the proposal.

Additional game lands

THE GAME COMMISSION approved the acquisition of more than 4,000 acres of new state game lands through the purchase and donation of five parcels. The largest of the purchases is 3,300 acres in West Keating Township, Clinton County, which is being purchased from the Rocky Mountain Elk Foundation for

\$567,600 (\$172 per acre). It will comprise a new game lands, and will be designated State Game Lands 321.

“This tract was originally purchased by the Rocky Mountain Elk Foundation and the Northcentral Pennsylvania Conservancy for the Game Commission,” said Vern Ross, commission executive director. “The commission

is acquiring this land from the RMEF and Northcentral Pennsylvania Conservancy for a fraction of their original price tag. This purchase agreement demonstrates the commitment of these two organizations to preserving open spaces for hunters, outdoors enthusiasts and wildlife, including elk."

Ross added that this property is one of the areas being considered for the third, final site of the elk trap-and-transfer program.

In 1997, the commission began a 3-year program of trapping elk in the traditional range of Elk and Cameron counties, and portions of Clearfield and Clinton counties, and expanding their range. The goal was to return elk to their former range with suitable habitat and, ultimately, to restore elk hunting in Pennsylvania. To that end, Ross has formed a committee of interested stakeholders to develop a plan for presentation to the commission's Executive Office and board of commissioners. Legislative approval is required before any special elk hunting licenses will become available.

In related action, the commission approved a donation of three acres of

land in Benezette Township, Elk County, by the P&N Coal Company, of Punxsutawney, Jefferson County. This parcel will permit additional facilities to be constructed in the official elk viewing area in the Winslow Hill area of Benezette Township. This land will become part of SGL 311, which currently contains more than 2,684 acres.

Other land purchases approved by the commissioners include:

- 447 acres from the Ringold Mining Corp. in Porter Township, Jefferson County, for \$99,500 (\$223 per acre). This tract will comprise a new game lands, and will be designated State Game Lands 320;

- 393 acres from Harry and Mary Mullen in Banks Township, Indiana County, for \$83,220 (\$212 per acre). This parcel will become part of SGL 174, which currently contains more than 3,241 acres; and

- 11 acres from Earl Shappel in Tilden Township, Berks County, for \$4,400 (\$400) per acre. This property will become part of SGL 110, which currently contains more than 10,133 acres.

Commissioners invest in youth projects

COMMISSIONERS approved the designation of \$5,000 to be used in the agency's WILD ACTION Grant program, which awards grants of \$250 to \$500 to schools and non-profit youth groups for the planning and implementation of habitat improvement projects.

The WILD ACTION Grant program has been in place since 1993, funded entirely by grants from outside the agency, from groups such as Project

WILD's national office; Pennsylvania Outdoor Writers Association; Conservation Officers of Pennsylvania Association; Pennsylvania Association of Womens' Clubs; and the Richard King Mellon Foundation. The agency will continue to seek partners to fund WILD ACTION grants while at the same time providing stable funding itself.

In other action, the commission approved:

- An increase in the minimum bond amount for license issuing agents to \$18,000. With the license fee increase that took effect July 1, 1999, more than half of the issuing agents did not have sufficient bonds to cover an adequate supply of hunting licenses in the initial shipment. This resulted in many agents selling out of licenses before they could reorder more. Increasing the minimum bonding requirements will reduce these problems and help assure that licenses will be readily available to hunters;

- Jan. 9-11, 2000, as the commission's next meeting date. The commission will meet in Harrisburg for its regular meeting and to hear from sportsmen and others regarding seasons and bag limits for 2000-2001;

- A 2000-2001 budget of \$65,968,595, a 7 percent increase over the current fiscal year budget of

\$61,503,000. Estimated revenue for 2000-2001 totals \$62 million. The agency will have to use \$3,968,595 of its unreserved fund balance to balance the budget. Included in the budget is \$1.5 million first-year funding for the Conservation Reserve Enhancement Program, a cooperative farmland habitat improvement program, which has been described by many as the last hope for farmland game. The approved budget now will be presented to the governor's office; and

- Tabling a proposed rule to create special permits for landowners with a properly maintained deer enclosure fence for forest regeneration to harvest deer outside of the established deer seasons. Commissioners wanted to clarify certain aspects of the proposed rule before taking action on it. The proposed rule will be considered at a subsequent commission meeting.

Lantz Hoffman dies

LANTZ HOFFMAN, Director of the agency's Bureau of Information and Education from 1981 until his retirement last November, died on September 30, at the age of 63.

Hoffman, who served as a volunteer deputy wildlife conservation officer from 1965 until his death, began working full time for the Game Commission in 1979, when he became the agency's first public relations officer/legislative liaison.

Hoffman's accomplishments included bringing Project WILD to Pennsylvania, which enhanced environmental education in schools throughout the state; vastly improving the agency's ability to get its message out to media; modernizing the agency's news release program; shepherding the youth field day con-



cept into the state's outdoors community; starting the agency's videography unit, which has produced three outstanding wildlife documentaries; and spearheading the agency's acclaimed centennial activities in 1995.

"The Game Commission is indebted to Lantz Hoffman," PGC Executive Director Vern Ross noted. "He gave his all to this agency and asked nothing in return. His dedication to duty and commitment to the commonwealth's wildlife was awe-inspiring. He cared, and it showed."

Hoffman led the agency's charge into many controversies over the past two decades. They ranged from removing protection on bear cubs and implementing bonus antlerless deer licenses to mandating fluorescent orange clothing for turkey hunters and campaigning for license fee increases in 1985 and 1998.

"Most times, Lantz Hoffman and the Bureau of Information and Education succeeded in swaying public opinion," noted Carl Graybill, acting Information and Education director, "through factual reporting and educational programs.

"The Game Commission is better today for having Lantz Hoffman as one of its senior managers," said Graybill. "He worked above and beyond the call of duty religiously and was the consummate team player. He cared deeply

about the Game Commission and its employees. He will truly be missed by agency employees and sportsmen statewide."

Hoffman began his media career in 1953 as an announcer and newscaster for Lewistown's WMRF radio station. He later went on to become director of news and public relations at WFBG television and director of public information and relations at Pennsylvania State University's Altoona campus.

Hoffman in 1990 was selected as the International Association of Fish and Wildlife Agencies' Communicator of the Year. Other achievements include: Pennsylvania Game Commission Outstanding Employee Award in 1995; and Northeast Fish and Wildlife Agencies' Communicator of the Year in 1997.

"Lantz Hoffman was my friend for many years," noted Commissioner Sam Dunkle. "We served as deputies together. Raised our families together. And when I came to Harrisburg as a commissioner, Lantz was waiting at the headquarters door to show me the ropes.

"I will miss my friend Lantz more than words can describe," Dunkle said. "He cared deeply about many things, but none more than his family, friends and the Game Commission. The commonwealth's conservationists and wildlife have lost a true friend."

REGION OFFICE PHONE NUMBERS

Use the following numbers to contact a region office:

Northwest — 814-432-3187

Southwest — 724-238-9523

Northcentral — 570-398-4744

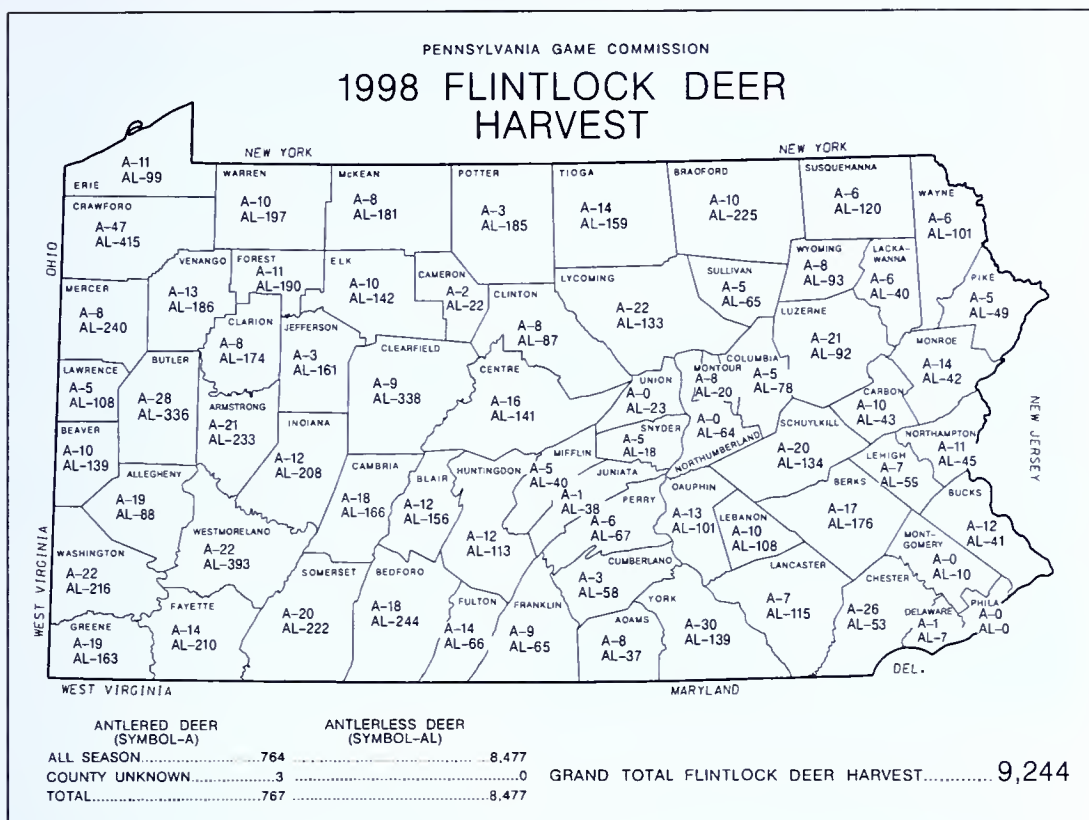
Southcentral — 814-643-1831

Northeast — 570-675-1143

Southeast — 610-926-3136

TIP Hotline: 1-888-PGC-8001. This number is **ONLY** for calls concerning illegal killing of **endangered species** or **multiple big game animals**. All other calls should be made to the appropriate region number above.

1998 FLINTLOCK DEER HARVEST



"Link" program launched

A NEW PROGRAM has been launched to connect hunters and trappers with landowners looking for help in controlling deer, goose, muskrat and other wildlife populations on their properties. Called "Link," the pilot program is designed to provide relief for landowners, especially where deer populations are having adverse impacts on agricultural crops and forest regeneration, and help sportsmen looking for places to hunt and trap.

Participating landowners are not bound to open their property to public hunting and trapping, nor must they open their property to every hunter who is interested in coming there. Also, the program does not require participating landowners to commit to a long-term arrangement.

Interested landowners will fill out

a form listing a description of the property; sporting arm limitations (for instance, only bow and arrow hunting); maximum number of hunters permitted on property per day; game species in abundance; and hunting limitations (for instance, only antlerless hunting, hunting by daily registration only or no tree stands). The form is then posted on the commission's website (www.pgc.state.pa.us) in county-specific lists.

Interested hunters and trappers can then access the landowner information through the commission's homepage. After identifying a property they would be interested in visiting, hunters and trappers then would complete a "Hunter/Trapper Information and Profile Form," which they would send to a participating land-

owner. This form, also available on the website, will include background information about interested hunters and trappers, including name, address, telephone number, age, hunting license number, years of hunting experience, and hunting preferences (species, dates and times). With this information, and possibly a subsequent telephone call, a landowner would decide whether to invite an applying hunter or trapper to come to their property.

Landowner participation forms and hunter/trapper information and profile forms may be obtained by writing:

Pennsylvania Game Commission, LINK Program, 2001 Elmerton Ave., Harrisburg, PA 17110-9797.

Hunters or trappers interested in contacting a landowner may print out a Hunter/Trapper Information & Profile Form from the agency's website, fill it out and send it to a landowner, with a self-addressed, stamped envelope. This form is also available through Game Commission offices, PSU Extension Service offices and other participating organizations. Landowners would be expected to reply to requests promptly, using the self-addressed, stamped envelope.

Lions Club receives Bluebird Society Award

THE AVON-GROVE Lions Club, from Landenburg, Chester County, received an award from the North American Bluebird Society in recognition of the outstanding work it's done to help bluebirds and other cavity nesting birds.

Since 1987, club members have made and sold more than 5,500 nest boxes from recycled lumber from local mushroom plants and old farm

buildings, raising more than \$55,000 for their community. Money raised has been used for Lions Club charitable projects such as putting up nest boxes, for seeing eye dogs for the visually impaired, and for cleaning up the environment.

The North American Bluebird Society is a nonprofit organization dedicated to the protection and enhancement of North American bluebirds.

Report Card reminder

DEER HUNTERS, don't forget to send in report cards for any and all deer you've taken, or may take in the late archery and muzzleloader seasons, this license year. Report cards provide vital information for our deer management program. Be sure to include the deer management unit and township where the deer was taken, too. This

information is necessary to fully evaluate any change for the current, county deer management unit system. Refer to page 45 of the current *Hunting and Trapping Digest* or the pull-out section for a map of deer management units. If you don't have a big game report card, use or make a copy of the one on page 34 of the *Digest*.

PEOPLE WITH DISABILITIES who require special assistance at Game Commission public functions should contact the telephone number listed with the announcement, the appropriate region office or the Harrisburg headquarters. Phone numbers for each region are listed in *Game News*; the Harrisburg number is 717-787-4250.

Outstanding Employee Awards

The following employees were honored at the June commission meeting for their exemplary work and achievements over the past year.

CALVIN W. DUBROCK, Director, Bureau of Wildlife Management, began his career with the Game Commission in 1982. Very dedicated to the commission, Cal gives 110 percent of his time, year after year, because he's so committed to protecting and enhancing our wildlife resources for this and future generations. Cal is an excellent manager and has the trust of bureau employees.



MARGARET A. ATTS, Clerical Supervisor for the Northwest Region, began her career in 1981. She has always been very progressive in her outlook towards her work, and her overall knowledge of our system is second to none. A self-motivated team player, she is respected and appreciated by the entire Northwest Region.

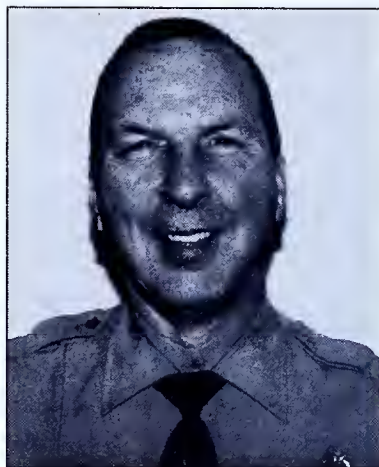


LEE R. HOFFERT, Game Lands Maintenance Supervisor, Southeast Region, has been a PGC employee since 1971. An excellent mechanic and always willing to try new management techniques, Lee is also known for continually looking for ways to save the agency money. He can be counted on to complete any job without supervision. Lee played a significant role in the demolition of the Eastern Game Farm.



DENNIS E. JONES, Game Conservation Officer Supervisor, Southwest Region.

A graduate of the 14th class, Dennis began his career as a land manager in 1971. In 1979 he was promoted to his present position as Land Management Supervisor. He not only performs his duties extremely well, he goes above and beyond the call of duty. He was a member of the eagle recovery team and has also been a driving force in reestablishing black bears to the Southwest Region.



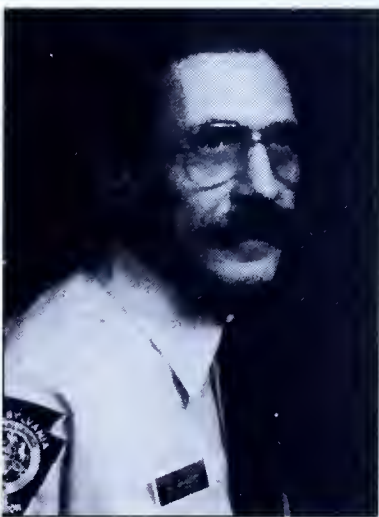
RAYMOND E. MURPHY, Wildlife Management Propagator, Northcentral Game Farm.

Since beginning his career in 1971, Ray has been relied upon for his many skills and commitment to game farm operations. He holds a Poultry Technician License with the Dept. of Agriculture, and his commitment to the game farm included many hours of trouble-shooting and repairing problems in the hatchery and brooder field operation caused by equipment breakdowns and storm damage. He's a role model for other propagation employees.



STEVEN M. SPANGLER, Game Land Management Group Supervisor, Southcentral Region.

Steve began his career in 1985 as a member of the 19th class. Today, he oversees the management of 25,892 acres of state game lands and 193,633 acres in the Farm-Game program. In 1997 Steve was awarded the Conservation Service Award by the Susquehanna Valley Chapter of Pheasants Forever, and he serves on the committee for Ducks Unlimited. Steve has used his computer skills to develop habitat structuring programs on game lands. He's an active member of COPA, and is always willing to forge ahead with new ideas.



Trees can tell you all sorts of things if you're a good "listener."

Tales the Trees Tell

I'M OUT in the woods and I'm surrounded. Trees are all around me. Trees tall and slim and candle-straight. Trees gnarled, squat and spreading. Trees with skinny, bare branches that rattle in the wind. Trees whose limbs wear thick sleeves of green needles.

Today I'm noticing the trees, but usually I can't see the trees for the forest.

We tend to overlook the individuality of the trees that, all together, make up the forest. We see the forest as mainly background, the stage setting for the action, which is the drama of the hunt. When we're hunting, we're mostly watching for something else, the flash of white of ear or tail that means deer. Or maybe we're searching for the silky black of bear fur gliding along a swamp edge, the button-round eye of a crouching rabbit, the flip of a silver-gray squirrel tail.

We tend to see the trees, if we notice them at all, as secondary, as stage props. The forest encompasses us and we're aware we're "in the woods," only in a general way. Yet trees are individually arresting, each unfolding its character to us, if we let it. Trees are simply the one kind of wild life that a hunter can count on seeing when he's afield.

Pennsylvania has many types of trees; an outdoors person could spend a lifetime learning them. Not just the varieties, but each tree, singly, has a tale of the kind of life it has lived — tall and spreading, with



Bob Steiner

IDENTIFYING trees can be beneficial to hunters. Beech trees, such as this one, don't produce mast every year, but when they do, their sweet nuts are relished by wildlife.

plenty of room to grow; narrow and fighting with its neighbors for the sun; bent by snow or split by lightning. You don't have to "talk to the trees," but if you know how to look at them with understanding, the trees can talk to you.

Some of that talk will make you a more successful hunter. Before there were the acorns under your boots, there was the oak. Which tree, among those all around, dropped the nuts? Can you tell by the bark

alone, by the tree's general shape, by its leaves seen close-up and from afar? Do you know what kind of oak it is, and what that means to wildlife? You should. All those abilities will bring more game to bag.

Acorns are easy to find when they're on the ground. New hunters don't progress far in the sport before they find out that wildlife, from bluejays to squirrels to turkeys to deer, are gluttonous over the fat and protein-rich nutmeats. During winter's icy grip, can you tell which trees, of the many standing gray and naked, are the ones that produce acorns, not the winged seeds of maple? If you can, you'll increase your chances for late season squirrels and deer and will have found an oak patch to revisit next fall.

When leaves are summer-green, do you know which tree's limbs to watch for developing acorns? From across a valley in fall, can you spot the cluster of oaks? (Hint, look for rich brown leaves and tall, spreading crowns). I have often crossed from unproductive maple woods to an oak stand I'd seen on the opposite hill, and immediately got into squirrels, turkeys or deer, or all three.

Oaks are the first tree types it's helpful for hunters to know. But did you know that most animals prefer the sweeter white oak acorns over the more bitter red oak nuts? Or that white oaks can produce acorns every year, while red oak acorns take two years to mature? Or that you might find acorns from oaks that are neither of these common types? Bur oaks grow in moist bottomlands, and their acorn has a cup with "fringes." On high, rocky soils, the unoaklike leaves of the chestnut oak (they resemble the chestnut tree's leaves) signal the possibility of a fall mast crop for wildlife, on an otherwise poor mountaintop.

Red oaks could be northern red, black, scarlet (for its autumn leaf color), or even skinny-leafed pin oak. Shingle oak (for its wood's use in pioneer days as split shingles), or northern laurel oak (for the shape of its leathery leaves), grows in damp ground near streams, and produces acorns, too. Not

every oak tree has leaves that are classically lobed, so learn the varieties and look beyond the basics.

Do you know the hickories as well as you do the oaks? Hickory nuts are also a favorite with wildlife. On an "off year" for acorns, hickory, beech, walnut, butternut and hazelnut become the nuts of choice for wildlife. Could you find those trees in the forest?

The easiest hickory to identify is shagbark, its trunk wears "fringes," sections of the outer bark that curl away from the tree and make it look shaggy. Besides shagbark, shellnut, mockernut, pignut and bitternut hickory can be found in Penn's Woods, all producing nuts. When you see their hard nutshells cut open, gnawed through on the side, watch for squirrels nearby. If uneaten hickory nuts litter the ground, squirrel's will be back.

The bark of many trees changes personality as the tree ages. Maples are smooth when young and retain a general smoothness in their middle age. In their grand maturity, the maple's bark is deeply furrowed, with platelike scales. Not so the beech. Smooth and gray when it is young, the beech's trunk is as clean and neat-looking when it becomes a cylindrical giant.

Beech and maple are opposites in their usefulness to deer. Don't look to beech as a favored browse when it is short enough for deer to reach the leaves, not unless the whitetails are winter desperate. Do look to maples, when they're in the seedling/sapling stage, for deer to eat the leaves, buds and twigs heavily. Conversely, full-grown maples drop no nutmeats in the fall. Big beech trees, on the other hand, do let fall sweet nuts that whitetails and many other types of wildlife relish. Don't count on beech to produce mast every year; they bear inconsistently. But do check mature beech patches, or even single trees, each fall to see if they've set out a banquet.

Nut bearing trees aren't the only wildlife attractors. Being able to identify dogwoods when they don't have their snowy

flowers let's a hunter come back to shoot squirrels that visit the trees in fall, for their bright red berries. Dogwood fruit is like "squirrel candy," and the bushytails will clean a tree of them. If a dogwood in leaf topples, it becomes a deer magnet. The leaves must taste as delicious as the berries.

I also hunt for and hunt near trees that produce another "squirrel candy." This is the cucumbertree, or cucumber magnolia. Related to the flowering magnolias in suburban yards, the cucumbertree does produce rather showy (for a tree) greenish-yellow spring flowers. The leaves can be huge: maybe 5 inches wide and 10 inches long. The cucumbertree's fruit pod is what wildlife really goes for; the species is named for the appearance of its unripe fruit. In fall, watch for the fruit fallen to the ground and ripening. The pod is rose pink at first, turning to dark brown and splitting open. Inside are berry-like, bright orange fruits. Squirrels gorge on them shamelessly.

In my region, wild cherries are a favorite wildlife food. When I find leaves that have been scratched up over a wide area by turkeys, the attraction is often wild cherries, not nuts. When turkey hunting, I've learned to look for the very dark, scaly bark of the cherry and not to pass up a cherry hillside heading for other trees. Black cherry grows tall; pin cherry and chokecherry are smallish trees; both produce fruit. Wild cherry trees benefit turkey hunters twice: in the fall the fruit is forage and in the spring the white blossoms add a dab of beauty to still-bare hillsides.

The shorter Allegheny serviceberry, or shadbush, also has May blooms and produces small fruit. This past fall the hawthorns bore heavily, their bright red fruit

like Christmas baubles against their sharp-thorned limbs. Then there's winterberry, autumn olive, mountain ash, and the alternate-leaf, roughleaf and red-osier dogwoods, which produce berries that wildlife, especially birds, go for. All grow shrub to small tree size.

Sometimes the trees I see aren't particularly useful to wildlife, but they have an oddity that stops my roving hunter's eye.

Like the spidery yellow flowers of the witch hazel, which open in the fall, of all times. American hornbeam has a smooth, blue-gray, muscular looking trunk and limbs; sometimes it's called musclewood or blue beech. White birch stands pale against darker tree trunks and reminds me of New England and Canada, wherever I am.

Devils-walkingstick is a strange, small tree with sharp spines on its twigs and big, blue berries. Sassafras has leaves that are single, triple or double lobed; the double lobed look like mittens. Black tupelo is fall's most brilliantly crimson tree.

As hunters, we take so much time to learn as much as we can about animal wildlife, especially game species, studying the ways of a buck in rut, the mating rituals of the wild turkey. Why not learn more about the trees that surround us? Many tree field guides are pocket size and can be carried into the woods. Or pocket a leaf, nut or berry and identify the tree at home.

Not to sound too "green," trees are our "plant companions" when we're in the woods. We can be among strangers or familiar faces; it's up to us. We can learn the trees to be self-serving, to improve our game-finding success. Or we can become better acquainted with them because, if we don't, we'll have an impoverished experience afield. □



Behind the Badge

By Douglas Dunkerley

Washington County WCO



Beeper Blunder



RETURNING HOME after patrolling on the second day of buck season, two of my deputies and I received a radio call from the region office requesting that we call them by phone as soon as possible. Stopping at a nearby restaurant, I called and was told that a caller had witnessed what he thought was a violation, and that I was to call him as soon as possible.

I immediately called the witness and was told that one of his neighbors, a man who went by "Big Bill," had killed a buck on the first day of the season, and had probably killed a second deer that evening in a

nearby field about 15 minutes after shooting hours. He said there was a slight problem, though. He really couldn't say for sure if Big Bill had killed the deer. Thinking something was fishy, though, he continued to watch the field through binoculars when a white Ford pickup sped past his house and stopped in front of Big Bill's house. He watched as Big Bill jumped into the truck, and the driver drove into the field where the shot had been fired.

Due to the lay of the land, the witness could not see what was going on, and after 10 minutes the truck emerged from the

field. He knew he had to get the license plate number of the truck, but as luck would have it, he wasn't able to get it, so he returned to his house in disgust. It wasn't long until his doorbell rang, and he was surprised to see Big Bill, Big Bill's friend, Earl, and Earl's soon to be father-in-law, Whitey. The men wanted to show him the huge buck in the bed of the pickup. The caller couldn't believe his eyes when he saw the 12-point rack with a 21-inch inside spread on the buck in the back of the truck.

Big Bill said he had located the deer late that afternoon and beeped Earl on his pager. Earl's tag was on the deer, with 4:50 p.m. written on it for time of kill (a good 20 minutes before the shot was heard). The witness asked what they were going to do with the buck, and Big Bill said they were entered in a big buck contest and were certain they had the winning entry, so they were going to have it checked in at the processor running the contest. As soon as they left, the caller contacted the PGC region office to report what he had seen.

With this information we went to the contest check-in site and quickly spotted a white Ford pickup with blood and hair on the tailgate. There were about 30 deer hanging outside, but it was easy to find the buck we were looking for because of its huge rack. The tag verified that it was the deer we were looking for, and the owner of the shop approached and asked if he could help us. I asked him if Earl was still inside, and the owner said that he was and that he would get him for me.

Earl came out and greeted me. While questioning Earl, my deputy noticed that he wasn't wearing a watch, so he asked him how he knew what time it was when he killed the deer. Earl quickly showed us how he had retrieved the time from his pager. Earl continued to claim that he had killed the deer at 4:50. I told Earl that we had some concerns about the deer being taken legally. I told him I would have to take the deer for an examination, and he didn't

seem too overly concerned. I wrote a preliminary citation for possession of a deer killed after legal shooting time. Earl didn't seem at all upset, but when Big Bill came out he was visibly angry and told me that if I damaged the antlers he would sue. I asked him why he would sue if it wasn't his deer, and after pausing for a second, he said to help out his friend.

While driving home I asked the deputies what information could be obtained from pager records, and no one was sure, but my newest deputy said she would find out. As it turned out, there is no record of calls kept by the paging company, but information is stored on the pager until cleared by the owner.

We surmised that the page was probably a toll call from anywhere in our county, so we went to the District Justice for a subpoena to access Big Bill's phone record. After receiving a copy of the phone record, we had all we needed to charge Big Bill, Earl and Whitey. I knew this case would go to a hearing, but with the evidence we had, I was confident of winning.

When the day in court arrived, as expected Big Bill, Earl and Whitey showed up with legal representation. Like most cases, before the hearing, the lawyer called me aside. Usually it's to ask for some kind of plea bargain, but this lawyer surprised me by telling me that I didn't know what I was doing, because there was no way anyone could have seen who shot the deer. I asked him if he was looking for some kind of a deal and he said, "No, we'll let the judge decide."

I presented the state's case with my main witness (the original caller) testifying with all the information he had provided us. I had two other witnesses that confirmed the time of the shot. My deputy and I testified to the events and the questioning of Earl the night the deer was killed. On cross-examination of my main witness, the lawyer was shocked and delighted when he said he couldn't say for sure who shot the deer.

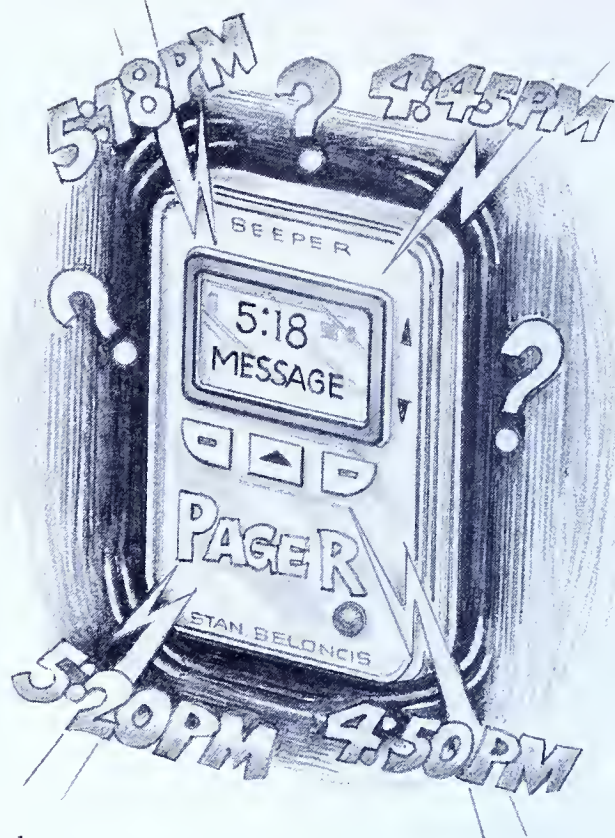
The defense had Big Bill testify as to when the deer was killed, about how he had called Earl to come over and shoot the deer, of how Earl had arrived with his hunting license but had forgotten his gun and had to borrow Big Bill's, and of how the buck had hung around since 1:30 that afternoon.

Earl testified to everything Big Bill had said, and added that his arrival time was 4:45 p.m. At that time he went in the house, talked to Big Bill's Mom, got Big Bill's gun, walked 600 yards from the house, sat down for a while then shot the buck at 4:50. After killing the deer, he went back to the house to get a knife and gloves to dress it, indicating that he was in the house from about 5:10 to 5:30. On cross-examination I marveled at how much he had accomplished in the five minutes before shooting the deer and asked how he was so sure of the time. He again said that after shooting the deer he checked the time on his pager. I reserved the right to recall both Earl and Big Bill.

Big Bill's mother took the stand and confirmed Earl's 4:45 arrival and getting the gun and his leaving. She was sure of the time because she had been in the kitchen and looked at the clock when she heard the shot at 4:50. She also said that Big Bill and Earl returned to the house at 5:10 to get gloves and a knife.

Whitey testified to arriving in the white pickup at 5:35 p.m. (This testimony helped us tie his involvement to the case. Prior to his testimony, we weren't sure if he had knowledge or had participated in the violation.)

The defense rested, making the statement that the state had not proven its case and charges should be dismissed. I called Earl back to the stand, and I asked him if he knew his pager number. He said he wasn't sure, but started rattling off some incorrect numbers. I interrupted and asked if he had two pagers. He paused then said



no. I read his pager number to him and the company name and asked if they were correct. He swallowed hard, began to lose color in his face and said that the information was correct. I then produced Big Bill's phone record of calls made on the second day of buck season. I asked Earl if he could find his pager number on the bill. He was able to identify two calls from Big Bill to his pager. I asked him to read the times of the calls. After a long silence and with a red face Earl read 5:18 and 5:20 p.m. I asked Earl if he could explain why someone from Big Bill's house would page him twice in two minutes when he was already at the same house. I didn't give him a chance to answer but told the court the reason. He wasn't at the house and didn't arrive until 5:35 p.m., in the pickup with Whitey.

Big Bill, Earl and Whitey were all found guilty of the unlawful taking and possession of wildlife. The defense lawyer was right; I couldn't prove who shot the deer, but I could — and did — prove that it was taken after legal hours. □

Surfing the Web is okay, but there's just something special about curling up in a favorite chair, next to a fireplace, with a good book.

Living with Books

IN THIS BRAVE new world of surfing the web, some of us still prefer to dip into books for information and inspiration. "I cannot live without books," Thomas Jefferson once wrote to John Adams. Neither can I.

I specialize in nature books and 1999 produced a wealth of them, including two on bird migration — Scott Weidensaul's *Living on the Wind: Across the Hemisphere with Migratory Birds* (North Point Press, \$26 hardcover) and *Gatherings of Angels: Migrating Birds and Their Ecology*, edited by Kenneth P. Able (Cornell University Press, \$29.95 hardcover).

Weidensaul's book is a bulky 420 pages and covers just about everything you ever wanted to know about migration in the Western Hemisphere. Complete with an index, notes and bibliography (amenities that used to be taken for granted by readers but are less and less common in today's hurry-

up-and-get-it-done society) Weidensaul's natural history research is as impressive as his writing. He often deftly blends facts and enduring images in the same sentence writing, for instance, that, "Every rainless autumn night, half an hour after sunset, the land sighs a great, upward breath of birds,



which climb to one or two thousand feet before leveling out, their beaks pointed to the south."

He divides his book into three sections: "Southbound," which follows migrants south in autumn, "Hiatus," which focuses on their wintering grounds, and "Northbound," which tracks them as they head north in spring. Using the latest in research findings, he answers the how and why of bird migration.

Weidensaul is no stay at home naturalist. In the autumn he visits the Izembek National Wildlife Refuge at the tip of the Alaska Peninsula and peers into the Bering Sea at migrating shorebirds. On the shores of Lake Erie he watches a gray-cheeked thrush and other migrating songbirds. He rolls with the pitches on a 51-foot ketch off the coast of Nova Scotia in search of pelagic seabirds, and perches on a dusty, hot, rooftop in Mexico's eastern Veracruz, counting more than 450,000 migrating raptors in one day . . . "We had witnessed, by far," he writes, "the heaviest hawk migration ever recorded, anywhere in the world."

In winter he visits some of the places "our" birds migrate to — Belize in Central America, Jamaica in the Caribbean and the pampas of Argentina. He even braves a Vermont winter to observe Arctic birds — rough-legged hawks, snowy owls, Lapland longspurs, snow buntings and horned larks — that flee to the northern United States where "at least the sun rises . . . in the morning, which is more than you can say about the tundra." Nearer home, he covers finch irruptions in Pennsylvania and the upsurge of over-wintering snow geese on the Delmarva Peninsula.

Finally, as the birds come pouring across the Gulf of Mexico in April, Weidensaul sits on Dauphin Island to watch "The Gulf Express," as he calls it. He says, "Small explosions of birds [that] materialize out of the sky, whirring from on high, beyond the limit of vision and into the trees like bolts, until the woods were stuffed to overflow-

ing with them." At least 55 species of songbirds make the flight, from ruby-throated hummingbirds, warblers and thrushes to kingbirds, orioles and cuckoos. He also visits Nebraska in search of migrating sandhill cranes, the Lostwood National Wildlife Refuge in northwestern North Dakota to look for returning grassland species, and the Delaware Bay to watch migrating shorebirds gorge on horseshoe crab eggs.

Throughout the book he profiles a wide diversity of bird species, such as blackpoll warblers, Bachman's warblers, Bicknell's thrushes and Swainson's hawks, and he makes it clear that there is "trouble in the woods," along the seashores, in the grasslands, in fact, throughout the Western Hemisphere due to humanity's meddling. But he ends on a note of hope, "We have started to recognize the problems and search for solutions . . . here, at the last possible moment, we have awakened to what we stand to lose . . . " In his book, Weidensaul outlines many of these initiatives and gives us plenty of reason to become part of the solution.

While Weidensaul is a natural history writer, Kenneth Able is an ornithologist whose *Gatherings of Angels* contains chapters written by nine ornithologists, including himself, about their research on migrating birds. Able first became interested in migration when, as a teenager, he looked through a telescope and watched birds flying across the full moon. "The moon provided a tiny window into a secret, and, for me, immensely exciting world," he writes.

Although there is some overlap with Weidensaul's book, including the background information on migration, each chapter focuses on a different species or group of birds and the localities they need to survive their migration, from the Platte River in Nebraska to the cheniers of Louisiana. *Gatherings of Angels*, which seems like an apt title for a Christmas present, refers to the echoes from birds and other unknown targets that early radar operators called "angels" and "to places where mi-

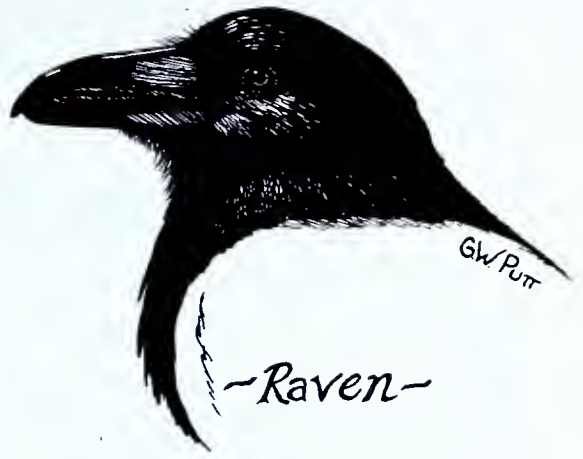
grants congregate—the gathering places of the radar angels.”

Of special interest to Pennsylvania readers is Hawk Mountain Sanctuary’s Keith L. Bildstein’s chapter, “Racing With the Sun: The Forced Migration of the Broad-winged Hawk,” in which he discusses why broad-wings migrate so early and quickly over central Pennsylvania.

In addition to readable prose, *Gatherings of Angels* features 24 pages of color photographs and an additional sprinkling of black-and-white photos throughout the book, including one of the inimitable Rosalie Edge, who founded Hawk Mountain Sanctuary and another of the mountain’s killing fields before the sanctuary was established.

Able, like Weidensaul, is concerned about the future of migrating birds, but he is more pessimistic. He says that “the general consensus among biologists [is] that the main threat to migratory birds (and other animals as well) is habitat loss . . . I see more habitat being lost to 5-acre house lots, to shopping malls, to road building, to cancerous and ill-advised coastal development, to clear-cutting. I see ever more habitat degraded by fragmentation, overgrazing, poor forestry and agricultural practices . . . And despite some progress in cleaning up toxins in the environment, pervasive pollutants still appear to be having insidious effects on birds and other wildlife . . . ”

Still, he hopes that his book has motivated readers to take constructive action on behalf of these migrating “angels.” Able says, “To imagine a world in which the warblers, thrushes, and tanagers do not return to our forests in spring, where clouds of migratory shorebirds do not wheel and dart across coastal mud flats, or in which the great clamor of cranes cannot be heard on the heartland of North America is intolerably sad.” Able may be a scientist, but he is also an excellent writer, and his concluding chapter, “Conservation of Birds on Migration,” is worth the price of the book.



Bernd Heinrich is also a scientist and a writer. His sixth natural history book — *Mind of the Raven: Investigations and Adventures with Wolf-Birds* (Harper Collins, \$25.00 hardcover) — continues his research on ravens that he first chronicled in *Ravens in Winter*. Since October 29, 1984, when he first discovered ravens on a moose carcass in the Maine woods, he has “lived and breathed” ravens, watching them in the wild and in huge flight cages he has constructed for them on his homegrounds in both Vermont and Maine.

He travels widely to observe ravens in other settings — Germany, Baffin Island, Yellowstone National Park and California. But most of his behavioral observations concern his captive crows Fuzz, Houdi, Goliath, Whitefeather, Matt, Munster and Hook, a cast of characters that seem almost human as they go about their business of playing, eating, caching food, courtship, mating, raising young and defending territory.

Heinrich devises numerous scientific experiments to test their intelligence, and the reader is constantly amazed, as Heinrich is, by the cleverness of ravens and their ability to seemingly think out solutions to problems. Heinrich is not afraid to ask such questions as “Are ravens conscious and emotional?” or to explore their capacity for morality, tolerance and cooperation.

He accompanies his lively text with

many of his black and white photos and drawings, as Heinrich is also an artist and photographer. This is a must book for Heinrich fans, raven aficionados, and everyone who wonders about the inner life of our fellow creatures on this earth.

Butterfly watching has become almost as popular as bird watching lately. Pioneered by Jeffrey Glassberg, founder of the North American Butterfly Association, he was the first person to demonstrate how we can watch butterflies through binoculars in his first book, *Butterflies Through Binoculars: The Boston-New York-Washington Region*. Now his long-awaited *Butterflies Through Binoculars: The East* (Oxford University Press, \$18.95, paperback) has been published which includes 625 color photographs of butterflies in the wild, and color maps that show where each species lives and for how long each year.

In addition to the usual field guide information, the book contains chapters on butterfly gardening, the life history of butterflies, where and how to find them, butterfly photography and butterfly conservation. In fact, Glassberg calls conservation the "raison d'etre" of his book, writing, "The main reason we are losing so many butterflies is that humans continue to expand their realm and destroy the habitats that butterflies need to survive. Wetlands are drained, woodlots are cut, fields are converted to parking lots or lawns."

Lawns, he says, "are biological deserts that support almost no butterflies...They also cost money to maintain by frequent mowing, waste water and pollute streams with fertilizers." He makes a plea for saving disturbed habitats such as weedy fields that conservation professionals often dismiss as "trash," such as our goldenrod-covered First Field that harbored six species of nectaring butterflies, including hundreds of monarchs, one golden September day.

Other problems that reduce butterfly

numbers and species are pesticide spraying for gypsy moths, mosquitoes and agricultural pests, as well as pesticide use on home grounds, and the continued killing of rare and local butterfly populations by collectors. Instead of collecting, Glassberg counsels readers to buy a pair of close-focusing binoculars and, armed with his spectacularly beautiful book, become an expert butterfly-watcher, able to identify these "caterpillars in wedding gowns" as one person so beautifully described them.

Some naturalists are also poets. One of the best is Wendell Berry, who calls himself "an amateur poet," in his superb collection *A Timbered Choir: The Sabbath Poems 1979-1997* (Counterpoint Press, \$12.50, paperback). I have read this book several times and always find something new and vibrant in it. Like Berry, "I keep an inventory of wonders and of uncommercial goods."

Berry has spent his Sunday mornings in a walking meditation, composing poems "In silence, in solitude, mainly out of doors." Alternately a praise song and a lament, he writes about such subjects as winter wrens and twinleaf, logged mountainsides and old age, bloodroot and birdsong, his love for his wife and children, and the death of friends, parents and Kentucky farm neighbors. But most of all, he praises trees:

*Great trees, outspreading and upright,
Apostles of the living light
Patient as stars, they build in air
Tier after tier a timbered choir*

Of all the nature books I have read in the last year, *A Timbered Choir* is the most thought-provoking and enduring, a book to be savored over and over. Like Berry,

*Another Sunday morning comes
And I resume the standing Sabbath of the woods.* □

Extra Arrows

ALTHOUGH THERE HAS never been a legal limit on the number of arrows an archer may carry when hunting in Pennsylvania, there are practical considerations dictated by common sense. It narrows down to a single shaft, which is normally kept at the ready when a shot is anticipated, plus as many more as the individual feels is adequate.

Some of my photos taken in the early 1950s indicate that the usual number of extra hunting arrows carried was about four. Strangely, that is probably the same number, on average, carried by big game bowhunters today, despite bow quivers that will accommodate up to 12 arrows.

There once were a few brave but foolhardy characters who carried one or a couple extra broadhead-tipped arrows in the same hand that grasped the longbow. Spares were then normally carried in a back or a belt quiver, but they served a somewhat different purpose than the popular quivers of today made primarily to fit compound bows. It wasn't too unusual for some early bowhunters to unload a fistful of wooden arrows at distant deer in lieu of making a proper stalk. Such antics are frowned on today.

Modern archers know that a 20-yard shot — reasonable for the majority of archers — may still result in a miss or a less than desired hit. At such "close" distances, it is rare to get a second shot immediately, although a follow-up on a wounded animal's trail may produce one. In such instances, additional arrows are essential.

I know of one unfortunate instance in which a deer was downed by an archer who was about to administer a finishing shot

on his first arrowed animal. An experienced hunter who was certain that the first arrow was fatal talked him out of it. At that, the deer took off and was not seen again.

Aside from demonstrating the need for carrying extra arrows, this incident illustrates the need to take a second or killing shot any time there is the least doubt the initial arrow is effective. A supply of extra arrows will remove any concern about risking additional shafts on the same animal regardless of the distance.

Another advantage in extra arrows is that they can be used to provide a finishing shot for a companion who have registered a questionable hit. Thoughts about how expensive big game hunting arrows are should not be a consideration in trying to finish off a wounded animal.

It's not unusual to lose one or more arrows from a quiver unknowingly caught on thick brush, if the broadhead seat or restraining clip becomes worn. Of course, it's also easy to lose an arrow in leaves or thick brush.

Even if you don't choose to carry a full quiver on the average big game hunt, there are times when this may be desirable, depending upon how far you plan to hunt from your vehicle. Or, if you are hunting alone, extra arrows may be welcome, should trailing an animal become necessary.

My last buck taken with a bow is a case in point. Although the arrow hit a little high on the downhill broadside shot, it caught the main artery just below the backbone and passed through. A copious blood trail led to where the deer dropped, within 80 yards. A half-inch difference in where

the arrow had hit, up or down, could have spelled trouble.

Many years of personal experience and that of others have taught me that it takes only a little twig to turn a seemingly good shot into a miss. Or it could be a bowstring-catching jacket cuff or pocket cover, buttons, zippers, or an over-extended cap bill, a frayed bow string that should have been replaced and shot in, a cracked arrow neck, or a damaged bow limb that chooses the worst time to break. Any one of these and other errors in judgement and equipment can foul up the most critical moment of the hunt, especially if it happens with your last available arrow.

At the very least, it likely decreases the number of usable arrows by one. Perhaps the only excusable item in the preceding is the simple error in judgement of distance with a shot. If the shot is at the usual 20-yard distance for most target ranges, the well-practiced archer should be able to put an arrow just about on the mark. Of course, if the distance is up or downhill or footing is less than level, the shooting range is not quite the same as that to which we become accustomed.

Further, our vision, in trying to equate what we are seeing with what is usual, in-

vites a certain amount of error. We must admit to being less than perfect.

With flat shooting compounds, most of the inherent vertical error is not of grave consequence up to 20 yards — if our sighting device is set at that distance — if we can come within four inches of the exact center of the almost certain kill area. This will vary only slightly, depending upon size of the animal and power of the bow.

To accept this premise, we must eliminate shots that strike well off the intended mark yet inflict injury that leads to eventual death of the animal.

To be able to hit a deer as close as possible to where we want, it's important to shoot some target practice with the same arrows and broadheads that we plan to use for hunting.

We may detect a consistent difference in arrow performance between target and hunting heads. This may be corrected by a slight change in the sighting arrangement for the hunting season.

But it could be only one or two arrows that don't perform the same as the rest. This problem may be traced to a bent shaft, an imperfect joining of the head to the shaft, a misaligned or improper fletching or a nock that is not properly fitted or is not the right size. Occasionally, a quick repair at some time along the line may permit an error to creep in. Such arrows should be repaired or be discarded.

Rare is the archer who can judge shooting distances well with the naked eye much beyond about 12 yards. You can easily prove this for yourself by selecting a mark, such as a small tree or a large rock and writing down what you believe to be the distance. Then check your guess with a tape. Most archers are in for a big surprise.

As in anything, practice will improve our scores. We become so used to shooting

Bob D'Angelo



THREE DIMENSIONAL animal targets prove to an archer how foolish it is to take certain shots when the vitals are unlikely to be successfully penetrated by an arrow.

As many readers recall, Keith Schuyler was the *Game News* archery columnist from 1963 until 1997, when physical problems forced him to curtail his archery and writing activities. As this guest column shows, Keith is once again in the field, bow in hand.

at predetermined distances on field and indoor ranges that judging distances in unmeasured woodlands and fields is a useful game in itself.

This is why three-dimensional animal targets, particularly of deer, are useful far beyond their basic intent. They permit an archer to not only view a true likeness of a live animal, but also see how foolish it is to take certain shots when the vitals of the animal are unlikely to be successfully penetrated by an arrow.

The International Bowhunter Education Program places considerable emphasis on this phase of its teaching. "No shoot" situations are illustrated in which poor angles of penetration are likely and invite wounding rather than clean kills. Rear and head-on shots are discouraged, not because a good archer is incapable of making a hit, but because even the best are unlikely to make a killing shot. For someone accustomed to hunting with a high-powered rifle, passing up such shots with a bow requires a great deal of discipline.

The same is true on field shots that are considerably beyond or closer than to where the archer may have set his sights. Or proper allowance is not provided for in the uphill-downhill situations.

Last year I passed up a 20-yard shot at the biggest whitetail buck I have ever seen within shooting distance while carrying a bow. It was the first morning of the regular

antlered deer season, and I spotted the big buck at about 40 yards. It seemed to be headed my direction. Then it suddenly appeared moseying down a hill over a deep ditch with only a few large branches separating us. Even if I could have avoided the branches, my shot would have been head on. Worth mentioning is that even though I was wearing fluorescent orange, the buck seemed curious and made a couple steps in my direction. Then it ambled off into brush on my right and the show was over.

I have not had any regrets at not taking the shot. A number of years ago I passed up a rear shot offered by a 4x5 mule deer that became mine several days later.

Despite the effort in practice to avoid the necessity of needing more than one arrow on a hunt, we must realistically do so. Yet, any experienced bowhunter knows that it is unusual to get more than one immediate shot at a deer. The fact that it does happen is reason enough to carry extra arrows for the countless times when they are just dead weight.

In many years of bowhunting before the first regular archery season in 1951, I always carried at least three extra arrows. Yet I recall only one instance when I had an immediate chance to shoot more than one arrow at a deer after missing it with the first. Over the years, though, there have been several deer that might have been lost without the means for a coup de grace. There are times when the deer moves at the shot, turning an apparent sure kill into an extended chase.

Yet, the hunt would be over without extra arrows to make continuation practical. The point to these happenings is that wounded animals were properly dispatched for others and myself because I had extra arrows. Don't be without them. □

Touted as the gun that won the West, the lever action rifle has accounted for a lot of whitetails here in the East. And one that can still be seen with some regularity in Penn's Woods is . . .

The Savage 99 — Lever Action Legend

I SUPPOSE it's fair to say that among lever action rifles, the 94 Winchester .30-30 reigns supreme in popularity. Two other lever action models, though, the 336 Marlin and the Savage 99, aren't too far behind. And although the .30-30 is unquestionably the most popular deer cartridge from the past, the .300 Savage has enjoyed a long period of success. For many hunters, the only cartridge that comes to mind when the Savage 99 is mentioned is the .300 Savage.

I'll get back to the .300 Savage later on, but a little history on the evolution of the lever action rifle might be appropriate here. Neither Savage nor Winchester developed the first lever-type rifle. In 1849, Walter Hunt, a machinist in New York City, was assigned Patent Number 6663 for a lever action rifle. It was far from what could be



ANDREW EPPLEY, Carlisle, took this Lycoming County 8-point with one shot from his Savage Model 99 in .300 Savage. The .300 Savage cartridge came to life in 1920, long after the Model 99 was born. It was designed to work through short action rifles and deliver ballistics close to those of the .30-06.

called a true lever action, though. Hunt's cartridge was a hollow conical lead "rocket ball" bullet. The ball had a cavity that was filled with powder and covered with a disc of some sort that had a hole in the center to allow ignition from a primer cap.

Lewis Jennings who worked for Hunt improved Hunt's invention. Although further improvements were made, and a few

thousand rifles were sold, production ceased in 1852, due to the low power of the rocket ball cartridge and the complicated design of the rifle.

In 1854 Smith & Wesson got into the act with their "volcanic pistol," which I think still used the "ball" cartridge. Around the same time, the Volcanic Repeating Arms Company was renamed the New Haven Arms Company under the control of Oliver Winchester. An employee, B. Tyler Henry, improved the volcanic rifle by modifying it to fire a .44 rimfire cartridge. It was a major step forward, and the "H" that is stamped on all Winchester rimfire shells commemorates Henry's contribution to the rimfire cartridge.

It's worth noting that around 1860 Christopher M. Spencer received a patent for a lever action repeating rifle. It was a 56-caliber that held seven cartridges in a tube incorporated into the stock. While a lever operated it, it really wasn't a genuine repeating rifle because the hammer had to be cocked manually. However, the U.S. military adopted it for use in the Civil War. Legend has it that Confederates claimed that the Spencer could be loaded on Sunday and fired all week. Apparently, the Spencer was more ruggedly built than the Winchester, because the military adopted it instead of the Winchester. However, Winchester still came out the winner when it purchased the Spencer Manufacturing Company's equipment and patents around 1869.

Another lever action rifle that caused Winchester some competition was the Whitney-Kennedy .45-70. Like all the rest, it had problems early on but was finally improved enough to handle a variety of cartridges.

In his book, *The Ninety-Nine*, Douglas P. Murray says, "Nearly 25,000 Whitney-Kennedy guns were produced until 1888 when the Whitney Arms Company was purchased by Winchester."

Everything pertaining to the lever action rifle seemed to take place during the

late 1800s. Marlin introduced their Model 81 in 1881. It was chambered for the .45-70, .38-55 and .32-40. Ten years after John Marlin brought out his lever action big game rifle, he offered a superb .22 rimfire version. During the last hundred years, many makes, models and calibers of rifles have come and gone, but the Marlin .22 rimfire lever action rifle is still alive and well in the Marlin Model 39. I believe it's the oldest shoulder rifle still in production anywhere in the world. It's an "All American" and an integral part of our heritage.

New Haven Arms Company employee Nelson King influenced the Winchester Model 1866, and ultimately the Winchester Model 1894, by significant improvements he made on the 1862 Henry rifle. He added a loading port on the right side in line with the magazine tube. The original loading tube was slotted, and King changed it to a closed tube that made it much more durable. The Model 66 swept through the hunting and shooting ranks. Due to its brass frame, some called it "Yellow Boy," but it's probably best known as "the gun that won the West."

The Model 66 went through many changes and models, such as the 1873, 1886, 1887, etc. In the end, the Model 94 that is still available today survived. Actually, Winchester designed the .30-30 or .30 WCF cartridge, and I think it's safe to say it was primarily for the Model 1894 lever action rifle.

The .30-30 earned the reputation as the standard American deer cartridge. For many years, the .30-30 could claim it had killed more deer than all other big game cartridges combined. With the popularity of high velocity, long range cartridges such as the .30-06, .270 and many others, that claim is no longer valid. Still, the old .30-30 ranks as one of the most successful white-tailed deer cartridges ever designed.

The Model 94 ejected spent cases straight up out of the action, a design that prevented scopes from being mounted on

top of the action. This meant that until the 1980s, when 94s were offered with an angle-eject system, scopes had to be mounted off to the side of 94 actions, so ejected rounds would not hit the scope.

Let's get back to the Savage 99, a lever action rifle that has enjoyed immense popularity for around 100 years. Arthur Savage entered the lever action rifle picture in 1892 with his Savage No. 1, a hammerless rotary magazine rifle design. It's not clear what cartridge the rifle was chambered for, but author Douglas Murray says that early drawings resemble the .303 Savage or .30-40 Krag.

Savage was more of a businessman than an inventor. Apparently, he had some mechanical ability, and it's known that he was interested in small arms. The history of Savage's life is too diversified to explain in a column. I don't know where he was born, but Savage received some education in the United States and England before moving to Australia then to the U.S.

While in his early 30s he moved to Utica, New York, and took a job as superintendent of Street Railway. His fascination for small arms convinced him there was a market for them in the United States. His first version was rejected by the military, but in 1893 he brought out a slimmer "magazine rifle" designed primarily for hunters.

Savage Repeating Arms Company came to life in 1894 in Utica. Its main purpose was to manufacture a commercial version of the M93 patent. It may come as a surprise, but Marlin made the first rifles because Savage didn't have the equipment or experience. The new rifle was called the Model 1895, but was similar to the older 1893 version. As far as anyone knows, the major change was lengthening the action to accept the new Savage .303 cartridge.

Many hunters thought the bullet of the .303 measured .303-inch in diameter, but the .303's bullet uses a .308 diameter bullet, just like the .30-30, .30-06, .300 Magnum, etc. Basically, the .303 cartridge is



Bob Mitchell

MARLIN introduced its lever action Model 81 in 1881, but the Model 336 in .30-30 and .35 Remington, has accounted for a lot of deer and can still be seen with regularity in the deer woods.

similar to the .30-30, but the two are not interchangeable. After the Savage Arms Company came into existence in 1899, the Savage Model 99 made its debut. Although it resembled the earlier Model 1895, it incorporated several significant changes. The front end of the breech bolt was squared off and an oblong hammer indicator (cocking indicator) was added to the top surface of the breech bolt near the front. Don't confuse this cocking indicator with the round pin that comes up behind the bolt on later models. Murray claims that Savage workers probably did a lot of filing and hand fitting. Starting somewhere around the 10,000 mark, Savage put the rifle's serial number on most of the basic components of the guns they were assembling. This would help find the right parts for each rifle after the final bluing and stock-finishing process was done. This practice lasted until 1950.

As I mentioned earlier, the .300 Savage cartridge comes to mind when discussing the famous 99 lever action Savage rifle. The .300 Savage cartridge came to life in 1920, long after the Model 99 was born. It

was designed to work through short action rifles and delivers ballistics close to those of the .30-06. Someone told me that close only counts with hand grenades and horse-shoes. That's true, I suppose, but the .300 Savage cartridge, while not a match of the .30-06, is plenty potent for whitetails, black bear and all other medium-size big game at reasonable ranges.

Another interesting aspect of the 99 Savage that isn't too well known is that the takedown model was offered with both a rifle and a .410 shotgun barrel. The 99 became a single-shot when using the .410 shell, as the rotary magazine would not handle the bulky shotshell.

A major change took place on the 99 in 1965 when the rotary magazine was replaced with a detachable (clip) magazine, a feature suited for today's hunter. Those rotary magazine 99s now in existence are

the last to be produced. It's unlikely they will ever appear again.

I have no idea if Douglas P. Murray's book *The Ninety-Nine* is still available. The last known address was 20 Polo Lane, Westbury, New York 11590. The book is a veritable encyclopedia on the Savage 99 and a must for 99 collectors.

For many decades, lever action repeating rifles played a dominant role in Penn's Woods for big game. There are literally thousands of big game hunters in Pennsylvania and around the nation who wouldn't consider any other type of action. They are dedicated fans, and rightfully so. The old lever action has left its imprint on American history. It deserves recognition and has thousands of faithful fans like the man who told me, "Shucks, it wouldn't be deer hunting without a lever action." I rest my case. □

Fun Games — By Connie Mertz

Sounds of the Season

Listen! Winter is talking. Can you identify her sounds? Unscramble each underlined word.

In the pre-dawn hours, a traeg-dohem owl calls *hoo-hoohoo-hoo hoo*. A dre-dalite hawk soars calling *keer-r-r-r*. Resident daCaan segee honk from the farm pond. A yonwd peewocodkr taps incessantly on a tree for a tasty meal. Eulb yjas visit the feeder scaring away the black-capped skedcchiea. Noisy black swcor fly overhead, and the yrag rquisirle chatters from atop a theiw pine, waiting to steal some wlefusno seeds. As wildlife sounds fade, the diwn is heard whistling through tall mochelks, koa veeals rattle, and once again giant konfaswles glaze the landscape.

_____ , _____ , _____
_____, _____ , _____ , _____
_____, _____ , _____ , _____
_____, _____ , _____ , _____
_____, _____

answers on p. 62

In the Wind

By Bob D'Angelo

Hunters in Ohio took 118,270 deer during the 1998-99 season — 23 percent fewer than the 153,159 taken the previous season.

According to 1998 national statistics, 216 natural resources officers have died in the line of duty in the U.S.

There were 155,675 deer taken by hunters in Tennessee in 1998.

Answers: great-horned, red-tailed, Canada geese, downy woodpecker, blue jays, chickadees, crows, gray squirrel, white, sunflower, wind, hemlocks, oak leaves, snowflakes.

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By Betsy Maugans

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